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ORIGINAL DEPARTMENT.

LECTURE.

DISEASE OF THE HEART.

BY ALONZO CLARK, M.D., LL.D.,

President and Professor of Pathology and Practical Medicine in the College of Physicians and Surgeons, New York.

I have some specimens here which you may examine and pass around among you. Here are two specimens of aneurism of the heart, and upon the inside of the cavity a new membrane has formed, as if to protect the thin walls and prevent them from bursting. Here is another, of stenosis of the mitral valve; the thickening of the leaves of the valve is striking. Here is another, of curious perforation from one ventricle to the other, an opening through the septum ventriculorum. It occurred in a young child, and the history was not obtained. Here is a fatty heart with rupture of the right ventricle. Here is a heart with perforation of the septum; it was taken from a German woman, forty five years of age, who had grown-up daughters. She was a patient in Bellevue Hospital twenty years ago. Her occupation was that of making lucifer match boxes. So far as the daughters knew she had never exhibited any indication of disease of the heart; they said she was never blue in the face, and she was not particularly short of breath in going up stairs. But she got pneumonia just before coming to the hospital, and the pneumonia developed cyanosis, and she died. We found this heart with an opening between the right and left ventricles, and it was entirely callosed, nothing new about it; if it was artificial it had become fully cicatrized. Now, how would you account for the fact that that opening had existed for forty-five years, and yet had given no indication of its presence? I think I can tell you. The heart beat quietly, and although the left heart is a good deal stronger than the right, if its whole power is exerted, yet the force it impressed upon the blood was only equal to that of the right heart, and the two currents, if they had a tendency to mingle, were opposed by equal force on each side, and as the right and left heart beat at the same instant, the blood in either ventricle would prevent an entrance of the other into it. But when a circumstance occurred that caused an increased action on one side of the heart, the blood of the two sides became mingled. The left ventricle would seem to have exerted less power than the right during the pneumonia, for the circulation in the lungs is hindered during pneumonia, and it calls for a greater force on the part of the right ventricle. This caused a portion of the venous blood to pass through the opening in the septum ventriculorum, and it became mingled with the arterial blood, and it was evidenced in her face and fingers, and indeed, over most of her body. The opening, when the heart was first removed from the body, was large enough to admit my three fingers, and it is pretty evident that it was congenital; but how such an opening could exist and not disturb the action of the heart it is almost impossible to conjecture, although I have tried to give you the most plausible explanation of it. It must have been a very even life that she led; she must have been free from all diseases that disturb the circulation, as in children with an open foramen ovale, who will get along very well as long as they are cheerful and happy, but as soon as they

begin to cry or to become strongly excited in the emotions they become blue. They may grow up to a pretty good age, and yet cyanosis will occur whenever anything occurs to disturb the harmony of the circulation in the two hearts. During a crying spell the respirations are slow and forcible, the blood requires some additional power to circulate it through the lungs, and this produces the disturbance referred to. This opening in the foramen ovale does not seem to disturb the circulation so as to induce hypertrophy of the heart unless the person live a very uneven life. In the calm of home the heart's circulation goes on evenly enough, and the venous or arterial blood does not pass into the wrong auricle, probably for the same reason that I just named, that the force of the two auricles in contracting upon their contents is so nearly equal that one current opposes the other and prevents any passing through the opening.

On Friday last we were considering, at the end of the hour, heart clots, and I observed that some of you opened your eyes when I spoke of ante-mortem heart clots. I told you that whenever a clot is attached all around the walls of the cavity in which it occurs, you may be absolutely certain that the heart has never beat since the clot was formed; in other words, that the man was dead before the clot was formed. I told you further, that if the clot be divided into a light and dark portion it must have had time to coagulate after the subsidence of the blood corpuscles. It is generally supposed that the blood will not coagulate in the body until six hours after death, or until after it has stood in the body for six hours, and during that time the blood corpuscles have time to settle to the dependent portion of the circulatory fluid, which then coagulating is partly light or buff colored, and partly dark. Then I told you that the indentation made in the clot, which extends out into the aorta, is very poor evidence of ante-mortem formation; the valves of the heart would have very little power to impress their mark upon such a coagulum if it formed before the heart ceased to beat; the indentation is made by the valves hanging down passively after death.

The vast proportion of clots that are seen at post-mortem examinations are of the kind that I have been referring to, those formed after death, but it is possible for a coagulum to form during life. I have a very beautiful specimen of the kind in the museum. The late Dr. John Cheeseman had a patient, a lady, who was subject from time to time to faintings, and directly after she had been laid upon her back the faintness would pass away. She had at length a fainting which was fatal, and Dr. Cheeseman obtained a post-mortem and found in the left auricle a ball fourteen lines in diameter, perfectly rounded, and of a grayish white color. It had been pushed down into the auriculo-ventricular opening, so as to separate the two curtains of the mitral valve, and it was wedged in there so that it required a little force to get it out. This stopped the return of the blood from the lungs into the left heart, and her death was almost instantaneous. This mass was rounded about as perfectly as an artist could form a ball. It had no rough surfaces, was perfectly smooth, and had been playing there long enough to produce a sort of cicatrization at the points of contact with the valve and at a little distance, about half an inch, within the auricle; they presented a sort of callous appearance; new fibrinous matter had been formed there by the irritation of this ball, and that was evidence that it had been there for some months at least, though there was nothing in her history which would fix exactly the time at which it formed. When the clot was cut open it was found to be composed of layers, just as a coagulum in an aneurism is made up of layers. In the middle of it was nearly a teaspoonful of very dark-colored, viscid fluid. The coloring matter of the blood had by some means found its way into the centre, where there was no coagulation. The layers of the ball were all of a grayish white color. After the coagulum first formed, the heart, of course, must have been embarrassed for a time, but the only effect of the contraction of the heart upon it would be to roll it into a ball, and this ball would be pushed down into the auriculo-ventricular opening every time the left auricle contracted, but it would leave a space on either side, through which the blood could pass. And the blood did pass for months in this way, but at length, for some reason, there came a stronger heart beat than usual, and drove the ball into the auriculo-ventricular opening, and there it stood until the post-mortem.

Nearly forty years ago a heart was brought here from Bellevue Hospital, in which there had formed something that looked like a polypus. It was attached to the septum-ventriculorum in the left ventricle, and its attachment was pretty close, and it looked as if it were a new growth. I made an opening into it, and found in the interior a fluid of a yellowish-white color, of about the consistency of pus, and which at first I sup-

posed to be pus. I took it first for a polypus that had grown out of the walls of the heart, and in which afterward inflammation had occurred and produced an abscess; but, of course, I was not satisfied with seeing it by the unaided eye, and I put some of the yellowish material under the microscope, and there was not a pus globule in it. It was a transparent fluid floating a great quantity of fragments and little globules a thirty-thousandth of an inch in diameter, or smaller. Before I had come to the conclusion that it was an inflammatory process that had produced this material I expected to find vessels in the peduncle (which was about half an inch long) running from the heart into the polypus. I examined it very carefully, and could find not a sign of a vessel; not a sign of vitality except fibres, but they were such as occur in a coagulum of blood. Then, as before said, on examining the fluid I found that it was not pus at all, but oily-like fluid, containing a multitude of broken down fibres and granules. I remembered then having examined a plug that had formed in the femoral artery in a patient with phlegmasia dolens, or milk leg, and found that the outer coat contained no vascularity whatever, and that the fluid material within it was just like what existed in this heart-clot. There must, therefore, have been a breaking down of the clot; as it possessed no vitality its fibres began to disintegrate, and fluid in some way, perhaps by imbibition, found its way into it, and in this the débris was floating.

Since I met you last a case of singular interest occurred to me. A gentleman from the West was sick at the house of his father-in-law in this neighborhood, and I saw him once or twice a week for five or six weeks. The prominent features of the case were an inability to lift the right arm, and the presence of pain. He could not raise it in this way, for his life. At first it seemed to be a paralysis produced by pain; for about four months ago, while attending to his business as a merchant, he experienced a sharp pain in the top of the shoulder, and it persisted so long as he continued to use his arm, and after about three o'clock in the afternoon he gave up attempting to do anything with his arm, and went home. From that time until I saw him the pain had been growing worse and worse slowly all the time. He would have, necessarily, days of comparative rest, but in the main it may be said that pain was the prominent feature of his case. Then there was œdema about his neck, almost wholly upon the right side. There was œdema upon the chest, and marked œdema of the arm, which gradually settled in the hand, and made a cushion upon the back of it. The physicians who saw him before I did called it neuralgia, or neck pains. Two were of the conviction that there was an aneurism of the ascending aorta, and that this pressed upon the nerves in such a manner as to produce pain. Of course, at my first visit to him I examined carefully, to ascertain whether there was aneurism. I could not find it; I could not find any evidence of the arteries being enlarged, or, for that matter, diseased. The case went on getting no better. Nothing that we did for him relieved him at all. The only comfort we could give him was by morphine. He died on Thursday night, and a post-mortem examination was made on Saturday. I could not be present, but got Dr. Welch to represent me, and bring me his report. He said a new growth had occurred near the neck, about the nerves of the axillary plexus, but this was not exactly a revelation after death, for we could feel it by examining the neck during life. It pressed upon the axillary plexus, and descended into the upper part of the thorax, and planted itself upon the upper border of the vena cava descendens. It had grown so as to indent the vena cava, and reduce its cavity so that it would hardly receive a small probe. From this point coagulation had taken place, extending downward to the right auricle. It began probably weeks before he died, and gradually accumulated more and more downward. The new growth had diminished the calibre of the vena cava more than four fifths, and had then extended on down to the right auricle, and had formed an old coagulation of moderate size; and it appeared that a new coagulation had formed upon that, either suddenly or in the course of an hour or two, and that had stopped the man's breathing; the blood was prevented from entering the right auricle by this new coagulation upon the old one.

Another point of interest in this case comes to mind: The level of the fluid in the chest cavity a few hours before death was two fingers' width below the inferior angle of the scapula, but at the post-mortem examination the chest cavity was found full of fluid, and the liver was crowded downward, and a spout of transparent serum came out when the chest cavity was opened. Now, how shall we account for that? In this way: When his breathing became difficult by obstruction, at the right heart, the venous circulation, of course, was very much retarded, and particularly that of the pleura, for the veins enter the vena cava descendens just about the point where the obstruction occurred. The ob-

structed veins became filled, of course, and they poured out their serum in great quantity, and with great rapidity. There was probably a gallon of fluid effused after the suffocation began.

I was called to see a gentleman not far from here who had a swelling of one leg, and a pain in the calf of that leg. The pain was so severe that his physician was induced to apply a blister to the leg, supposing there was inflammation. There was swelling from œdema, and there was pain, and these two conditions had deceived the Doctor. After I had visited him a day or two, the other leg began to swell, from œdema, and there was pain in the calf. He got better of this, so that he could sit up and walk about his room a little, when suddenly, as he was standing near his bed, he found himself sinking and losing his breath, and he threw himself upon the bed, to prevent falling upon the floor. When I saw him, an hour or two afterward, his face was as purple as it could be painted; his hands and nails were purple; the circulation through the heart was very feeble; there were all sorts of râles in the lungs; the lungs were enormously congested, and the heart-beats were very much embarrassed, so that the natural sounds could hardly be heard. I said to the Doctor, "This sudden occurrence of dyspnœa and this very purple face can only be accounted for by the fact that the right auricle is filled up with something, and nothing can fill it up, that I know of, except a coagulation." I was led to that conclusion because he had had two coagulations before—one in each femoral vein. Well, he suffered from intense dyspnœa, and both of us thought he would die, but he lived on day after day, and became better rather than worse, and after some time he was able to get up, and within a year I met him in the street, and he said, "Well, Doctor, I can go up the ladders now (he was a builder by occupation);" and he looked very well. Now what happened in him? I have very little doubt that a coagulation occurred within the heart, as before mentioned.

Then coagulation does take place during life sometimes. Its manifestation is pretty severe, and you can hardly misunderstand it. The fact that it is not recognized in as many as one in several thousand cases of persons to whom the doctor is called is evidence enough that it is of rare occurrence.

I have now to describe to you a disease, or a diseased condition, which was first observed by myself; a new disease. On the 13th of June, 1869, I was called to see a gentleman whom I found extremely restless, with a small and feeble pulse, and on visiting him the second time I found the pulse was rapidly growing infrequent. He had a restlessness that one can hardly describe; no position seemed to satisfy him. He lay down, he was not content with the position; he sat up, he was no more content; he leaned back on his elbows with his head raised a little from the bed, he was no better satisfied; there was no position in which he could get and be at all at ease. His face was very pale and rather pinched; the brain was pretty fairly active, but perhaps not so active as natural. It was not difficult to recognize a failing in the action of the heart, but the cause of it was beyond my perception. I was able to say there was a growing paralysis of the heart. Now mark four particular striking features of it: a small, infrequent pulse; marked paleness of countenance; pulse growing less and less frequent; and extreme uneasiness in regard to position. Now, if you will look through the catalogue of diseases, and note those in which the pulse is small, you will find always that it is rapid; the pulse is in no instance spoken of as small, feeble, and growing less and less frequent every quarter of an hour. This gentleman died. At the post-mortem examination it was found that there had been a mass of vegetation forming upon one of the valves, I have forgotten which one, and it does not matter for our present purpose; a portion of it had been detached by the current of blood in the heart, and had been forced into one of the coronary arteries and plugged it up. The result was, less and less action of the heart for a period of fourteen to eighteen hours, and then death. The paralysis of the heart, as I said, was easily enough recognized, but the cause of it we could not determine until after death. I do not know of any paralysis of the heart aside from cutting of the nerves that supply it that at all resembles it except that which occurs in diphtheria, or after it. The heart in the latter instance becomes paralyzed, but the pulse does not become infrequent; it will have its normal frequency at least, while in this case it fell down to about thirty, then to about twenty-five, and then to twenty in a minute.

About two years afterward I was called to see a certain gentleman, and as I entered the room he said, "I cannot see." His perceptions were pretty clear. He was lying flat upon his back, and he exhibited a good deal of the restlessness of the other case, but not so much. When I saw him I was unable to find the pulse in the wrist, but found it in the carotid artery, and it was very slow and very small. I was enabled in that

case to say, of a truth, "here is paralysis of the heart, but the cause is unrevealed." After his death the heart was examined, and exactly the same thing was found as in the former case; the coronary artery was plugged up near its entrance into the walls of the heart by a portion of vegetation that had formed on one of the valves of the heart, and had become detached and carried by the current to its lodging place.

The third case was a doctor of this city, aged seventy-two; and these gentlemen were all old men. I was called to him in the afternoon of a certain day. Dr. Lindsley was his physician. I found that paleness with restlessness, that infrequent and small pulse, and I said to the Doctor, "here is a recent plugging of one of the coronary arteries of the heart," and it so turned out. After his death the heart was examined, and a plug of the same sort as those before mentioned was found in one of the coronary arteries. That was in 1873. Within the last two years two or three similar cases have been reported, but I put out my patent by publishing a general statement in regard to the possibility of such an accident in Johnson's Encyclopædia, five, six, or seven years ago.

The coronary arteries are given off from the aorta behind the curtain of the aortic valves, and almost always, when the ventricle is contracting, these curtains lie up against the opening of the coronary arteries, and cover them, close them, so that during the systole of the heart no blood can enter them. But during the heart's diastole the aortic valves are closed by the weight of the column of blood within the artery; they shut in toward the centre of the aorta, and leave the mouth of the coronary arteries wide open, and the blood is forced into them at that time. Hence, when an embolus comes out of the heart it naturally goes past the opening in the coronary arteries, and hence we have embolism of the spleen, of the kidneys, of the brain frequently, as compared with embolism of the heart. It is only an embolus that comes back with the reflux of the blood that can enter the coronary artery. But that such an accident can occur, these three cases fully attest. I remember another case reported of the same acute disease, and still another of a chronic affection of the coronary arteries of the heart. The sudden occurrence of this accident has a very different effect from a gradual growing obstruction of the coronary artery. The latter occasionally occurs from a thrombosis or calcareous degeneration. In the slow closing up of one of these arteries there is sufficient anastomosis between the two to enable the branches of the artery that is losing its calibre to receive blood from the other, and the disease is chronic in that case. It is only when the obstruction is suddenly produced that you will get this particular kind of heart-beat and pulse, and I believe that the four symptoms which I named to you are diagnostic of the affection. You may not meet with such a case in your whole lifetime, but at the same time it is some satisfaction to know that there is such a thing, and that it can be distinguished.

I know of nothing that will have much effect upon these embolisms, or upon these coagulations. One word, however, with reference to the phosphate of iron and soda. The phosphate of soda is said to be the salt that keeps the fibrine in solution in the circulating blood, and it is with the hope that it will have this effect that it is given to patients in whom there is this tendency to coagulation; and as they need strengthening also, the phosphate of iron is added. But in the accident to the heart referred to, there does not seem to be any possible way of obviating it. The embolism is impacted into the coronary artery—in the cases referred to near its base; it was too large to go down further, else it would not have produced those effects. It might produce myocarditis if it were forced down to some of the smaller branches, but not loss of power in the heart, or, in other words, paralysis.

COMMUNICATIONS.

DEAFNESS AS THE RESULT OF THE POISON OF SYPHILIS.

BY LAURENCE TURNBULL, M.D., PH.G.,

Aural Surgeon to Jefferson Medical College Hospital, Philadelphia.

(*Continued from page* 510, *December 11th*, 1880.)

CLINICAL CASES.

Case of Heredito-syphilitic Disease. No Relief to Her Hearing from Treatment, but Much Improved by the Use of Auricles.

CASE 1.—F. M., aged seventeen; at school; applied March 27th, 1880. She looks bright, intelligent, but her mother states her health is not good; suffers from an eruption and pain at the nape of the neck; has a peculiar nasal voice, notched teeth, and wears glasses, from former disease of the eyes. Both ears affected; the duration is stated only to have been eight years, but the eye affected from childhood was almost blind; then she became deaf, when the eyes became better. The deafness was not sudden, but

gradual; she became worse and worse. Has no discharge from ear, no pain; singing noises; meatus dry. Previous treatment of ear, glycerine and syringing. Both membrana tympani opaque, thickened and sunken; no fluid in middle ear or tympanum. Loud watch not heard on contact with any part of the ear. Tuning fork heard on forehead. Voice close to ear, in a very loud tone. Acoumeter of Politzer only heard when the metallic button is placed in contact with the bones of the head. Tones of piano not heard. She has ulceration of nose and swollen mucous membrane of turbinated bones. Is subject to hoarseness; the whole surface of the soft palate, pharynx and tonsils covered with a fine network of bright blood vessels. No member of her family deaf. Diagnosis, heredito-syphilitic deafness. This was subsequently confirmed by a confession from the father. The nose, throat, pains in the head, etc., were treated by iodide and bromide of potassium, with tonics, until she was perfectly well and remained so for nine months, when she had a slight relapse, the eruption showing itself. Then she was ordered "Zittman's decoction" and sulphur baths. To relieve her deafness when in society she uses her auricles, and she can enjoy her music with them, as she is a good performer; but prior to the use of these helps to her hearing she had no pleasure in her music.

It is at times very difficult to make the diagnosis of syphilis when the history is not complete, or when the parties deny all knowledge, or they do not know what has produced the results, as the following well illustrates:—

Case 2.—A lady, fifty-nine years of age, placed by her position beyond all ordinary causes of syphilitic contagion, presented herself for examination, complaining of a slight sore throat, dating back more than a fortnight. There were sharp pains felt at the moment of swallowing, and a considerable glandular swelling situated at the angle of the jaw on the right side. Upon examining the throat there were observed upon the tonsil of the same side an ulcer the size of a three-cent piece, superficial, slightly excavated, and covered with a grayish secretion. The mucous membrane around this ulceration was œdematous, and formed like a cushion. No other lesion was found in the buccal mucous membrane, or in the isthmus of the fauces. The ganglia of the parotid region were voluminous and painful, and extending to the middle ear; redness of the skin existed, however. With this exception the patient complained of no trouble in her general health, and seemed to attach but little importance to the disease from which she suffered. Knowing this patient's manner of life, I was unable to suspect syphilis; nevertheless, at the end of some days a roseola made its appearance, which permitted no doubt as to the existence of syphilis, of which the ulcer in the throat was the primitive lesion.

The difficult question of etiology remained. After much research it was learned that the patient, having received into her house a child raised on the bottle, had the habit of often aspirating the instrument, to ascertain the temperature of the milk, by means of the rubber mouth piece. Now it was learned that the child thus nourished was affected with hereditary syphilis, with multiple lesions of the mouth and genital parts.

Keratitis, Parenchymatose; Otitis Media, Catarrhal, and Otitis Interna; Heredito-syphilitica; Recovery.

Case 3.—A. S., aged thirteen, was brought by her aunt and accompanied by her physician, May 9th, 1877. She is a bright girl, fair complexion and blue eyes; she has been at school, but, owing to her deafness, is unable to go on with her studies. Her mother is dead, father living. Her general health fair, not strong; both ears affected, but the right one worse than the left. The severe deafness followed the improvement in her eyes. She has keratitis, and she has been very deaf for eighteen months. She had her keratitis two years ago, and was under the care of an oculist. She employs glasses. Has no pain, no discharge from the ears; has ringing tinnitus. Meatus is dry and narrowed; membranes opaque, white, and malleus retracted. Eustachian tubes open, but so narrowed as to admit but little air.

H.D.R.E. $\frac{3\frac{1}{2}}{25}$ inches feet watch.
H.D.L.E. 20 inches.

Speech only heard in a loud tone; cannot hear a whisper in right ear. Tuning fork not heard on temporal bones, nor mastoid or occipital. Nostrils swollen, inflamed, and have a mucous discharge. There is a history of hereditary syphilis communicated from father to mother. Previous treatment a full course of bichloride of mercury followed by tonics. The incisor teeth are serrated and notched, as described by Hutchinson.*

After a protracted course of treatment of the catarrhal otitis, and constitutional treatment, by means of biniodide of mercury and iodide of potassium, increasing the dose until she took one hundred grains of the latter a day, in solution in water, and extract of glycyrrhiza, use of Siegle's

* The teeth here alluded to have been described by Dr. Hutchinson as characteristic of hereditary syphilis, but must not be confounded with those who have

Pneumatic Speculum, exhausted, to the membrana tympani, opening the Eustachian tube, etc., use of galvanic electricity, etc., the following was her condition:—

March 1, 1878. Membrana tympani on both sides still opaque, but moves better by inflation. I am satisfied there are some old cicatricial conditions of Eustachian tubes, which have, in part, been overcome. The hearing has improved in her bad ear to forty inches, and the left continued about the same. She is well in health, and able to resume her studies. She had during her treatment a number of relapses, but for some years has been quite free from them. Her cornea is still opaque, with some increase of her myopia; her glasses had to be of a higher power. She improved in hearing; the voice, however, was of great importance to her, as she is fitting herself to be a teacher. Has had no return of her severe deafness for three years. Otitis media purulenta cured, and returned with otitis media specifica also cured.

Case 4.—This patient, William B., aged thirty-two years, came to the Jefferson College Hospital Ear Clinic, May 3, 1879, for acute otitis media purulenta in left ear, and after some weeks' treatment was discharged cured. He subsequently contracted syphilis, followed by a fresh discharge, June, 1880, with perforation, which at first was treated as the one previously, but it would not heal until he was placed on specific treatment. I append the notes of my assistant, to whom he applied privately, after contracting the syphilis:—

William B., a barber by occupation, mulatto. Can find no history of syphilis antedating his first attack of ear trouble. On October 8, 1879, my note states he had been feeling badly for some time, and had a soft sore, which I cauterized with acid nitrite of mercury. Placed him on hyd. proto. iod., gr. ¼ ter in die, then on hyd. bichloridi and potassium iodide. On February 21, 1880, came back much broken down, mucous patches in throat and mouth, no appetite and emaciated. Applied diluted acid nit. mercury, and gave hyd. bichloridi and potassii iodid. Saw patient last time in March.

Second visit to Jefferson College Hospital. Condition of ear, etc.:—

Left ear. Hearing distance $\frac{6}{20}$. Pus in meatus. No pain. Tinnitus of rumbling character. Left membrana tympani perforated. Eustachian tube open. Duration two months. Diagnosis, otitis media purulenta. Treatment: cleansing with warm water and sodii bromis, followed by acid carbolic and zinc sulphas in solution.

July 14th. Applied powdered alumen and iodoform.

August 4th. Very little discharge.

September 1st. Almost no discharge.

September 10th. Washed and applied absorbent cotton.

September 9th–11th. Washed and applied absorbent cotton.

September 9th–13th. Left H.D. $\frac{14}{20}$.

Returned with an acute attack of myringitis in right ear, which was relieved by morphia internally, and scarifications of the membrana tympani. While under treatment the left ear again discharged, and the perforation opened afresh; there was applied absorbent cotton, to cleanse the parts, and iodoform and tannic acid in fine powder, with the internal use of biniodide of mercury with tonics. In the course of four weeks the discharge ceased, and perforation healed. H.D. restored to about the same as before his acute attack, and his eyes gave him some trouble. He was referred to the ophthalmic department.

After recording the above case a reprint of three cases, with remarks, was sent to the writer by Dr. Sturgis, of New York, "On the affections of the middle ear during the early stages of syphilis." His cases did not correspond with mine, as to the uniform appearance of the membrana tympani, and the nocturnal character of the pain. He observes, p. 3, "One symptom, however, although not pathognomonic, is yet sufficient to cause suspicion and lead to careful questioning as to syphilis. It is the infiltration of the membrana tympani, conjoined with absence of vascular congestion or acute inflammation."

In the first case, he describes the membrana tympani as "sunken, succulent looking, opaque, without any light spot; the drumhead looked as though infiltrated with fluid." It will be noticed that in almost all the cases above described, by myself and authors quoted, the membrane was white, opaque and dry, except in the detailed case, 3d. His second series of cases confirms my views in respect to the importance of treating the syphilitic symptoms with specific remedies, for he states, "I believe that we may

had mercury administered in infancy, producing defective teeth from mercurial stomatitis, as follows:—

Defective Teeth from Mercurial Stomatitis.	*Defective Teeth from Hereditary Syphilis.*
TEETH PRIMARILY AFFECTED.	
1st molars.	Central upper incisors.
CHARACTER OF ABNORMALITY.	
Promolascope. Enameldeficient; tranverse lines on incisors and canines; dirty, discolored, coated with tartar and pitted.	Peculiar *notch* in incisors; dirty; badly formed; often deficient in enamel and dentine; nasal voice, or lisp, with curious difficulty in pronunciation.

pick out the symptoms which are due to syphilis, and those which are due to old otitis media suppurative." I doubted this, and I so expressed my views in a letter to the distinguished gentleman, whose experience and opportunities have been very numerous. He sent me a reply, from which I make the following extract:—

"From what I have seen I incline to think that in these affections of the ear, in early syphilis, the membrana tympani is more often succulent, infiltrated, if you please, than is generally believed."

To test this proposition I directed one of my clinical assistants at Jefferson Medical College Hospital to examine the record books for cases of syphilitic disease of the ear, and the following is his report:—

"In the first five hundred cases of disease of the ear there were eight cases of specific disease; and the appearance of the membrana tympani were as follows: No. 201, in Record Book No. 2, membrana tympani perforated, swollen, and infiltrated. No. 202, in Record Book No. 2, perforated and infiltrated. No. 201, in Record Book No. 2, dry and opaque. No. 218, in Record Book No. 3, perforated and infiltrated; swollen. No. 221, in Record Book No. 3, not given. No. 225, in Record Book No. 3, membrana dry and white as paper. No. 233, in Record Book No. 3, opaque, dry, with lines upon it. No 473, in Record Book No. 6, inflamed and thickened, sunken, peculiar nasal voice; teeth characteristic of hereditary syphilis. From 500 to 850, six cases. No. 533, in Record Book No. 7, membrana tympani opaque, thickened, and sunken. No. 606, left membrana tympani not seen, on account of condylomata filling up the meatus. Right white, dry, and small perforation. No. 661, right membrana tympani perforated. Left, thickened, opaque, sunken, dry. No. 721, membrana tympani sunken, handle adherent, crescentic-shaped spot of calcareous degeneration in anterior segment. No. 735, membrana tympani sunken, opaque, and adherent. Left, opaque, adherent, with deposit and adhesion of handle of malleus. No. 748, right membrana tympani sunken, silvery reflex. Left, not so much opacity, more natural reflex. No. 838, membrana tympani, right, congested around the edges, umbo or light spot seen, but out of its natural position. Left, opaque, handle of the malleus prominent and twisted."

It will be noticed that in the fourteen cases, the majority of them, when the membrani tympani is not perforated, the appearance is dry, opaque and sunken; second, in all cases of perforation, when a part of the membrane is in situ, the membrane is more or less swollen and infiltrated with pus or serum.

PATHOLOGY.

The pathology of the various forms of changes in the ear produced by syphilis is a matter of great importance, and should be dwelt upon.

Voltolini (*Virchow's Archiv*, Bd. XVII, Section 8) observed hyperæmia in the vestibule, in the beginning of the cochlea and horizontal, semicircular canal, in a case of tympanic catarrh and probable periostitis in a syphilitic person.

Gruber (*Lehrbuch der Ohrenkrankheilkunde*, p. 617) found in a syphilitic soldier, who died of exanthematic typhus, considerable hyperæmia of the tympanic mucous membrane and membranous labyrinth, which appeared to be a good deal thickened. The labyrinthine liquid was sanguinolent and abundant.

S. Moos (*Arch. Ophthalmology and Otology*, vol. III, No. 4.) observed total deafness on right side. Myringitis, anchylosis of the ossicles, with adhesive inflammation in the labyrinth, with depositions of chalky concretions on the membranous semicircular canals and sacs. This patient was a seamstress, aged forty-nine. Old clinical diagnosis was encephalopathy, in consequence of secondary syphilis. During six years she had been complaining of pain at the top of the head and parietal region, and of vertigo. Five days before admission into the hospital she had fallen in the street, and could not stand or go about unassisted.

In a paper by Moos (*Virchow's Archiv*, Bd. XIX), is reported a case of secondary syphilis, in which deafness, annoying tinnitus aurium and osteocopic pains in the skull were complained of. The hearing was rapidly destroyed. The autopsy showed the external and middle ear intact, sclerosis of the petrous portion of the temporal bone, periostitis in the vestibule, and small-celled infiltration of the membranous labyrinth, anchylosis of the stapes to the fenestra ovalis. The trunk of the acoustic nerve was found unchanged.

Zaufal found a purulent inflammation of both ears, with perforation of both membranes, in a new-born child with congenital syphilis. Both perforations were below the manubrium, so that they could not be referred to an arrest of development.

Schwartze mentions, in his historical review of the literature on syphilitic affections of the ear (*Arch. f. Ohrenh.*, IV, p. 258, etc. 1869), that purulent otitis media of heredito-syphilitic infants is often rapidly cured.

Hinton dissected the petrous bones in one syphilitic case and found a congested state of the tympanic mucous membrane on the right side, and some old adhesions at the upper part of each tympanum, the membrana tympani very concave, the Eustachian tubes containing mucus; each vestibule was much congested.

According to Schwartze (Pathological Anatomy of the Ear, translated by Dr. J. O. Green, p. 46), the ulcers found with constitutional syphilis are annular and covered with a dirty grayish-white exudation, and from their edges being greatly swollen they cause contraction of the meatus, and when they exist the lymph glands in the vicinity of the ear are much swollen.

The serous catarrh (otitis media serosa) is found with syphilis, and is an inflammatory dropsy of the tympanum, of a yellowish-red color. It is the least common, and should not be mistaken for the very simple transudation (hydrops exvacue) which results from closure of the Eustachian tube.

Certain changes in the cerebral have been discovered by Huebner Barlow, and these same changes no doubt occur in the arteries which supply the ear, in syphilitic disease of this organ. These changes are opacity and marked thickening of the vessel, with diminution in its calibre. The thickening is chiefly in the inner coat, while the outer coat is abnormally vascular and filtrated. Charcot and Gombault describe a syphilitic lesion of the brain substance, which consists in the formation of disseminated small nodules, either on the surface or at the depth of nerve centres.

The ulcers of the Eustachian tubes, in syphilis, which extend from the pharyngeal mucous membrane, are much deeper, reaching the cartilage itself, and even penetrating its substance. Syphilitic excrescences, like the pointed condylomata, are sometimes seen at the osteum pharyngeum (Schwartze).

Syphilitic mucous patches on the tonsils, when examined under the microscope, show the latter to be seated upon the mucous membrane which covers the gland. The epithelial layer was thickened; some of the superficial epitheliæ were swollen and vascular; the papillæ of the mucous corium beneath were hypertrophied. It is to the hypertrophy that the prominence of the patches is due. The more profound syphilitic lesions of the mucous membrane begin by an induration of the corium and of the submucous tissue by deep nodules or gummata, which very soon ulcerate. By a careful examination it will be found that the syphilitic disease affects the most vital portion of the internal ear (the labyrinth), which becomes thickened in its membranous covering, and the fluid which it contains is bloody and increased in quantity. This accounts for the profound deafness. Second, we have the semicircular canals hyperæmic, with deposit of chalk concretions on the membranous portion of these canals, which accounts for the staggering gait of the patient, or a tendency to fall. Third, we have alterations in the bone structure which contains the most important and delicate parts of the ear, the petrous portion of the temple bone. Fourth, we have anchylosis of the stapes to the walls of the fenestra ovalis, so that it has no power to move by the impulse of sonorous vibrations, which are conveyed in mass and not in musical tones.

In syphilitic necroses of flat bones there is a new osseous formation which takes place at the edges, and in cases sequestra, as a watch glass. The diploë of the bones become more compact, and upon their external surface small hyperostoses are met with. A microscopical examination of the sequestra shows the medullary cavities of the diploë replaced by very narrow canals, and the transformation has taken place in consequence of the formation of osseous tissue which, being deposited, layer by layer, in the interior of the canals, has narrowed them. The purulent inflammation of both ears, with perforation, or evidences of the same, in new born children, the result of congenital syphilis, accounts for many of the cases of congenital deaf mutism. The dropsy and changes in the membrana tympani account for its white and dried character and appearance. The deep-seated ulcers in the Eustachian tube, unless very promptly treated, must, in a very short time, destroy the function of this important part of the ear. While the pointed condylomata destroy and contract the meatus, unfitting it for the reception of sonorous vibrations.

PROGNOSIS.

The prognosis in these affections of the ear depends almost entirely upon the stage at which the patient is suffering from the syphilis, and also the duration of the disease. In primary and secondary manifestions much benefit will result from a careful and active treatment, both local and general. In the tertiary cases among the poor the prospect is very unfavorable, while with the wealthy, and even those having all the comforts of home, proper food and attention, most cases will recover if brought to the aural surgeon in the early stage and while the general health is still good.

TREATMENT.

Condylomata of the external auditory meatus are uncommon. One of the earliest notices of such a difficulty was described by Sir William Wilde,* of Dublin. A female, aged 25, suffers from deafness, tinnitus, occasional pain, fetid and sometimes bloody discharge from her left ear, for eight months. The internal meatus is completely closed by several condylomata which grow around the margin, but particularly from its lower edge. They are sensitive to the touch, lobulated on their surface, project beyond the mar gin of the aperture, and are a little more florid in color than the natural skin. When the tragus is pressed backward a muco purulent discharge exudes between these growths.

The excrescences were touched with nitrate of silver, after which a poultice was applied. The subsequent treatment consisted in washing over the morbid growths with a strong solution of nitrate of silver every second or third day, and in the intermediate time keeping a dossil of fine lint wet with diluted liquor plumbi applied to the concha, besides the internal administration of Plummer's pill and sarsparilla. By persisting in this treatment for upward of two months the condylomata disappeared, leaving the meatus natural, when the membrana tympani was found unimpaired and the hearing was restored. A. Stöhr† published, in 1870, a paper on the formation of broad condylomata in the external meatus. As resident assistant physician to the large hospital at Wurzburg he observed fourteen cases of broad condylomata in the ear canals of syphilitic patients, eleven of which were females. The disease occurred mostly on one side only, and in persons whose ear canals were narrow. It began in the depth of the meatus as red patches, which developed into slight elevations (papulæ) and well marked condylomata.

Complications with severe affections of the middle ear and rupture of the drum membrane are not mentioned, but they do occur, as I have witnessed in my own practice four out of eight cases and in that of others. The condylomata were cured by Dr. Stöhr‡ in the course of one or two months. Relapses were noticed in three cases, together with relapses of other symptoms of syphilis, about six weeks after the appearance of the affection. All the patients regained good hearing. Mild cases were cured by constitutional treatment *alone;* severe cases required local treatment additionally, namely, abscission of the prominent excrescences, cautious touching of the deeper ones with nitrate of silver in substance, and the most careful cleansing with weak solution of acetate of zinc and hypermanganate and chlorate of potash.

In my treatment of condylomata situated in the external meatus, or on the edge of the membrana tympani, or in the throat—the latter being the locality in which I have most frequently found them to occur—I employ nitrate of mercury, in solution of one part to twelve of water, applied to the part, so as to destroy not only the superficial covering but the deeper diseased tissue. I wash the parts with lime water and calomel. I also apply a dossil of lint with powdered iodoform and tannic acid to the meatus. Of constitutional measures I prefer the hypodermic injection of the bichloride of mercury or the biniodide compound solution,* which I have employed with the most happy results. If the weather is cool or damp, care should be taken to have the patient well covered with warm clothing, and he should have a full meat diet, avoiding green vegetables or acid fruits, and employing tonics to keep up the system. In the treatment of what is now known as "Hereditosyphilitic affections of the ear associated with eye affections, to which a reference has already been made, and which comprises much the largest number of cases—which are almost all the result of the disease being received by the mother and transmitted to the child—it is in this class of cases that almost all of them have some affection of the eyes; in sixteen, six had at one time keratitis, and were liable at times to relapses. There cannot be a doubt in my own mind that there must be a pathological reflex relation between the eye and ear. This may be through the medium of the trigeminus, as suggested by Dr. Dransart (*Le Progrès Médical*), who reports four cases bearing upon the above subject, viz: (1) A tinker lost his right eye in 1870, by a wound from a fragment of iron, producing traumatic cataract; as a result of this accident he became deaf in the right ear. In 1880 he received a similar fragment in the

* "Practical Observations on Aural Surgery," Philadelphia, 1853, p. 202.

† *Arch. f. Ohren.*, p. 130, 137, quoted by H. Knapp, *Arch. of Otology*, July, 1879, p. 166.

‡ Op. cit., p. 167.

* ℞. Red iodide of mercury, grs. xvss
Iodide of potassium, ʒj-ʒv
Distilled water, f.ʒj-f.ʒvj. M.

Dissolve and filter, then add simple syrup until the whole measures fifty fluid ounces.

The dose of this is a tablespoonful, containing one-seventh of a grain of the red iodide of mercury, and seven and three-quarters grains of the iodide of potassium, which may be given three times a day. This preparation, says the late Dr. F. F. Maury, of Philadelphia, has never been known to salivate a patient, and is the best form of administering mercury in chronic syphilitic taint.

left eye, and he became deaf in the left ear. He was an alcoholic subject. (2) A child, aged twelve, was struck by a snow-ball in the right eye; he became deaf in the right ear. Father and mother were syphilitic. (3) A girl, aged eighteen, scrofulous, deaf and almost blind; multiple lesions of the sclerotic, cornea and iris; double iridectomy; sight was restored to the patient and hearing improved. (4) A girl, aged eight, deaf, ocular lesion; iridectomy, amelioration of vision, and diminution of deafness with reserve. There exists a pathological reflex relation between the eye and ear, as we have before explained. This relation, which takes place through the medium of the trigeminus, is such that a wound of the eye may induce deafness, or may ameliorate a deafness already existing. This relation operates preferably under certain pathological conditions, such as syphilis, alcoholism, lymphatism and scrofula.

There is also a ready connection between the eye and the throat, through the duct and lachrymal canal to the nose, thence along the Eustachian tube to the middle ear, and then extension to the labyrinth. In this class of cases, if mercury has not been employed, a fair, careful trial must be made with it, in the form of the hyd. cum cretæ, with small quantity of opium, with children, or even calomel, well guarded; or the use of mercurial ointment; or still better, the oleate of mercury by inunction, followed by syrup of iodide of iron and nourishing diet. The patient usually states that the giddiness and deafness which follows the eye affection is very sudden, but by careful inquiry it will be found that there was some anterior deafness. If we have found that the patient has been fully under the influence of the mercurial for a considerable time, then we must resort to the iodide of potassium in large doses, kept up for months, while, under all circumstances, the local treatment of the catarrhal deafness must be attended to. For the dizziness, resort must be had to the bromides, quinine and the hydrobromic acid, being careful not to induce dyspepsia by their use.

CONCLUSIONS.

First. That syphilitic diseases of the ear are less numerous in the United States than in Great Britain, or Europe, and that it is not so frequently a cause of deaf muteism. Yet there are cases of this affection.

Second. In almost all constitutional syphilitic disease of the ear in children and young persons it is associated with some affection of the eyes, throat and nose. The deafness which often follows the improvement in the eyes is sometimes profound.

Third. Persons who have suffered from constitutional syphilis, especially young persons and children, have great impairment of the hearing tones through the bones of the head.

Fourth. In a few cases the first indication of syphilitic diseased ear is a primary ulcer in the throat, naso-pharyngeal space, or in the auditory canal, or near the membrana tympani.

Fifth. Purulent otitis media, or otitis media serosa syphilitica, may occur in utero, or very young infants, while in young persons and adults we may have congestion of the tympanic mucous membrane from the same cause, anchylosis of the bones of the ear, with bands of adhesion in the middle ear, by extension from the throat to the Eustachian tubes.

Sixth. Syphilitic disease may affect the most vital part of the internal ear, labyrinth, semicircular canals and cochlea, with marked thickening and dryness of the membranes of the round and oval windows and vessels which supply the internal ear. There is also disease of syphilitic nature in the auditory nerve, also the brain itself, in the formation of disseminated small nodules within the nerve centres.

Hospital Reports.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

SERVICE OF PROF. D. HAYES AGNEW.

Reported by GUY HINSDALE, M.D.

Popliteal Aneurism. Cure by Pressure.

CASE 1.—May 18th, 1881. This man, sixty years of age, has a swelling in his ham. He says it made its appearance over a year ago. It is impossible to get from him any definite history of his injury. He says he has been a farmer. We will, however, fathom this thing from the appearances themselves, independently of any history.

The limb is œdematous, and pressure with the fingers leaves a visible indentation. Placing my hand on the tumor I find pulsation—a pulsation synchronous with the pulse—but which ceases when I make pressure on the femoral artery; the tumor also flattens and becomes soft, but as I withdraw my hand and relax the pressure, the tumor rebounds, and the throbbing is renewed. On applying my ear I find a sound, a very distinct and loud *bruit*. We have an aneurism of the popliteal artery. This artery is very liable to be attacked by aneurism, the arch of the aorta alone being a more frequent seat of this affection.

The formation of aneurism may be gradual, and the dilatation of the artery be uniform in its whole circumference. When all of the coats are ruptured the aneurism is said to be false or

diffuse; but we usually have only one or two coats involved.

In regard to treatment there are two plans to pursue. We may ligate the femoral artery or attempt the same results by pressure.

If we should cut into this sac we should doubtless find dense fibrin, having a very distinct, laminated structure. In tubular or spindle-shaped aneurism we do not so often find these fibrinous laminæ, for the contents of such a cavity would be more directly under the influence of the blood current. Fusiform aneurisms are, therefore, confessedly difficult to treat.

If we tie the vessel higher up, and allow a clot to form, there would be some risk to the patient. Our course should, therefore, be to use pressure first, and afterward, should this fail, to resort to ligation. I am surprised that persons are so ready to advocate the ligature, for pressure, when faithfully tried, rarely fails. This method has the advantage of first preparing the patient for the ligature, should that be necessary; the collateral vessels become gradually dilated, and are, consequently, able to supply the limb below with blood. It is not necessary to cut off all the blood, but just so much as to make the pulse faint. In this way we obtain better results; the clot is firmer and more secure. When, on the other hand, the blood is absolutely arrested, the clot is soft and may be channeled through by the force of the blood current.

We will place this man at rest, give him a low diet, and begin a course of treatment that will lessen the force and frequency of the circulation, ordering for these objects one to two drops of tr. veratrum viride, and seven to eight grains of potassium iodide. After continuing this treatment for a few days, keeping him at perfect rest, we will be ready for the operation.

It will be necessary to draw upon the class for assistance. The pressure must be made constantly, and not spasmodically; we must have assistants who can relieve one another every ten or fifteen minutes, for few people can exert the proper degree of pressure longer than that time. The force can be applied with the greatest certainty either by placing two fingers of one hand over the vessel, and planting upon them the flexed index finger resting against the thumb of the other hand, or by using the two thumbs one on top of the other. The pressure must be made until an assistant, with his hand placed over the aneurism, announces that pulsation has ceased. When the time comes for one assistant to be relieved, the artery must be commanded before he removes his fingers. Dusting the skin with powdered starch or prepared chalk will prevent excoriation, and a hypodermic injection of morphia will enable the patient to endure the treatment if it should be painful. I have little faith in instrumental pressure.

We will expect to cure this case in from twenty-four hours to three days, and will, therefore, be able to give you an opportunity to acquaint yourselves practically with all points in the treatment—a most valuable experience.

Note.—Pressure was made, without interruption, for twelve hours. At the end of thirty-six hours, pressure having been suspended during a portion of the time, pulsation had ceased.

June 24th. None of the signs of aneurism have returned and the cure is complete.

Popliteal Aneurism. Cure by Ligation.

Case 2.—May 25th, 1881. We have, to day, another case of aneurism of the popliteal artery. The patient is a colored man, forty years of age, and a gardener by occupation. He thinks he can trace the trouble to a slip which he made about a year ago, in jumping out of a ditch, and he says that during the last four or five months the swelling has been slowly but steadily increasing.

The causes of aneurism are different. In the vast majority of cases there is present a vice of the vascular system, an atheromatous degeneration which weakens the walls of the arteries. I believe that intemperance is the most prolific cause of the development of arterial degeneration. It is the prevailing opinion throughout the profession, that constitutional syphilis is a fruitful source of aneurism. Our knowledge, however, of the relation between syphilitic poison and arterial degeneration, is entirely too meagre to warrant any hasty generalizations on this point. Besides these predisposing causes, we have exciting causes. Great violence may produce strains in the coats of an artery, or may produce a curve or an angle in its direction, from which an aneurism may result. Even the blood current itself, quickened by emotional states of the heart, may, by the increased tension of the vessels, excite aneurismal dilatation. Consequently, the aorta, from its nearness to the heart and the existence of an arch, or curve, particularly suffers from such influences.

In regard to the varieties of aneurism, we class them as true or false; true, when the blood is contained in a sac formed by one or more of the coats of the affected vessel, and false, when it escapes from the artery into the surrounding tissues, either in consequence of a wound in the vessel, or from rupture of an aneurismal sac. In this last instance the true aneurism becomes false. The sac may reinforce itself by becoming united to contiguous parts, and remain in this way unchanged for a long time; a limiting wall is formed from the condensation of the walls, and in cases of false aneurism, where the sac has ruptured, and the contents have been discharged into the surrounding tissues, the formation of such a wall is a most providential safeguard. We have also, among the false aneurisms, the dissecting aneurism.

But how are we to distinguish an aneurism? With such decisive methods of diagnosis at our command, it seems almost impossible that any error should be committed as to the nature of the disease; and yet some of the most eminent surgeons have made fatal blunders in this regard; indeed, within the last ten years, I have seen no less than three such errors, all of which proved fatal. In other cases, operations have been undertaken for the cure of aneurism, and the tumor has proved to be of an entirely different nature. Earle ligated the subclavian artery for what was supposed to be an axillary aneurism, but which was found to be a neuroma.

The swellings with which aneurism may be confounded are abscess, encephaloid disease, solid tumors, erectile growths, and cysts. Ab-

scess and aneurism are both round or oval in form; both present to the touch a degree of hardness or of softness; both may pulsate and both may communicate a sound to the ear. In abscess we have usually a previous history of inflammation, manifested by throbbing pain, heat, redness and swelling. But in aneurism there is no throbbing pain, the surface of the tumor is not tender, and excepting where it is very large and the walls are thinned out, neither is there any redness. The swelling of an abscess, as it increases, tends to become pointed, and at the summit it has a purple color. Except in rare cases, aneurism never presents these signs, nor is it ever attended with rigors, chills, and sweatings. In abscess the pulsation, when present, being due to an underlying vessel, will consist in a simple upheaval or rising and falling of the entire swelling; in aneurism the pulsation will be expansile; we seem to feel a living thing, acting in all directions; the tumor cannot be dislodged from its position by manipulation, so as to stop its beat. In aneurism the bruit in the tumor is loud, blowing, rasping and whirring, whereas, in abscess, the sound communicated from the artery to the swelling may have, in consequence of the pressure, a blowing character, but never the thrill or purr of aneurism, the sound being generally transmitted as a dull, concentrated stroke. In aneurism, finally, apply pressure on the artery above the tumor, and you will cause the swelling to subside and the thrill to disappear, both becoming instantly apparent on the removal of the pressure; on the other hand, apply the pressure below, upon the distal side, and the distention and size of the tumor will increase.

When I press on the femoral artery of this patient the pulsation stops, the aneurism flattens down, and it is not so tense; but as I relax the pressure the tumor immediately rebounds. There is no change in the color of the skin. But the most crucial of all the tests that can be applied is with the ear. I have no hesitation in saying, from the unmistakable sounds present in this case, that we are dealing with an aneurism. In every case of mistake, from Desault down, the surgeon did not make the test with the ear.

But you may have an abscess and aneurism coexisting, the tissues external to the latter being the seat of suppuration, and the inflammatory condition being the result of the irritation from the presence of the aneurism. In such a case a strict inquiry should be instituted to ascertain whether, previous to the condition which betokens the presence of suppuration, there existed a tumor; and, if so, whether it was a pulsating one. The ear should always be employed to learn if any aneurismal sounds are present. Last of all, you have that final test, the exploring needle.

The treatment of this patient will consist of compression, the same as in the other case. If we fail, we will resort to the ligature. Compression, as I said before, is no disadvantage; it is rather favorable for ligation afterward. We will give this man, for the first few days, small doses of veratrum viride and administer iodide of potassium.

NOTE.—The number of assistants available being small, Prof. Agnew decided to apply the ligature. This was accordingly done on June 1st, the artery being exposed at the apex of Scarpa's triangle, and secured by the animal thread. At the present date (June 24th) the patient appears to be perfectly well.

EDITORIAL DEPARTMENT.

PERISCOPE.

A Case of Nymphomania Cured by the Removal of Both Ovaries.

The *North Carolina Medical Journal* for June, 1881, contains the following report of a case by T. B. Wilkerson, M.D., Young's ⋈ Roads, Granville, N. C:—

Miss N. P., of Virginia, aged 19 years, of a nervo-sanguine temperament, with a heredity to melancholia on the father's side, a well developed brunette, highly educated, wealthy, having been granted all the luxuries that fond and doting parents could give in an élite society, and adorned with all the graces that beauty and chastity could confer on the female. Menstruation began at fifteen years of age; flow regular for eight or nine months, after which time there was a cessation of the discharge, the patient suffering from the various nervous phenomena ascribable to amenorrhœa. At the age of sixteen years there was a return of the monthly molimen, attended with severe neuralgic dysmenorrhœal symptoms, complaining, prior to each period, of a general malaise, frontal headache, pain under the left breast, dyspeptic eructations, bearing down, weighty sensation in the pelvic cavity, severe lancinating pains over both ovaries, the latter exceedingly sensitive to the touch; deep, dull, uneasy feeling in the sacral region, with an icy coldness extending down the hips and thighs. The continuance of these symptoms did not seem to impair the general health; appetite good, but bowels generally constipated. She was fond of dancing and ever ready to engage in the various innocent amusements of the young, with no marked desire for the company of men, but always maintaining a modest, dignified demeanor. About the age of seventeen she attended a gathering of young people, necessarily being thrown into the society of young men for several days and nights. This excitement seemed to bear heavily on the physical and nervous system, being just prior to one of her monthly periods. After the subsidence of the flux, a noted change was clearly perceptible in the general behavior—the usual vivacity of spirits was gone. She became morose and irritable, easily disturbed by the least noise—complaining

of a dizzy, buzzing feeling in the head. She would frequently break forth from this deep sombreness into wild, hysterical laughter, her conversation lascivious in character, disobedient to parents, finally ignoring mother and father; she became a raving maniac, with the one sexual idea always in the ascendant. There was a destructive tendency manifested toward everything surrounding her. So wild did she become that, moral restraint doing no good, physical restraint had to be employed.

This lady had been subjected to the best medical treatment obtainable for two years, without any benefit accruing. Battey's operation was then proposed, and with the consent of the parents the operation was performed on the 10th of August, 1880. The upper surface of the ovaries presented a pale and corrugated appearance; the lower part was of a deep pinkish hue. The patient reacted well and there was no nausea. Small doses of opium, quinine and carbolic acid were administered, and but little food was allowed for the first forty-eight hours, small pellets of ice being given when desired. The patient was confined principally to a milk diet with lime water during the after treatment. Small quantities of iced champagne occasionally. Wound united by the first intention. No pelvic trouble. She continued to improve, and at the expiration of three weeks had entirely recovered from the effects of the operation. There was a gradual change for the better in the mental condition; this improvement continued, and three months after the date of operation sanity was perfectly restored.

She has remained perfectly well, and is now, nine months after, gay, lively, cheeks ruddy, and in the full enjoyment of a vigorous mental and physical health.

Bullet Wound of the Stomach—Recovery.

Dr. H. M. Pond, of St. Helena, Cal., writes to the San Francisco *Western Lancet*, for June, 1881:—

On Sunday, April 17th, I was called to a patient shot in the abdomen. The bullet wound was two and a half inches above the umbilicus, and one inch to the right of the median line. From information gained as to the position of the parties when the shot was fired, it seemed probable that the ball had passed backward, and slightly downward, and to the right. Beyond ascertaining that the ball had not been turned from its course before entering the abdominal cavity, no probing was attempted. The patient was in a condition of extreme collapse, almost pulseless, and frequently vomiting blood. The unanimous prognosis of the three physicians who saw him was that the wound would certainly prove fatal, either immediately, from shock and hemorrhage, or in a few days, from peritonitis. Hypodermic injections of morphine, to quiet the stomach, and small doses of laudanum and brandy, to aid in procuring reaction, were first administered. In about five hours, as reaction came on, the latter was discontinued. At about midnight I was summoned, to find that my patient had fainted twice, had had a severe chill, and was suffering the most intense pain in the abdomen. The pulse was 140, and hard, temperature high (I neglected to make a memorandum of the number of degrees), intense thirst, nausea, and frequent vomiting, though blood was no longer raised. I regarded this as the onset of general peritonitis. Gave morphine, one-third grain, every hour until the pupil became contracted, and ordered hot turpentine stupes. The next day the pain in the abdomen was circumscribed to the right lumbar region: pulse less frequent, temperature 102°. The morphine was continued in less frequent doses, for the purpose of allaying pain, and keeping the bowels absolutely inactive, if possible, while the diet was restricted to liquid food. The wound in the superficial tissues was kept open by a plug of lint, and frequently syringed after suppuration took place. The patient steadily improved till Wednesday night, when a violent diarrhœa set in. Laudanum was administered in half-teaspoon doses after each passage till the diarrhœa was checked, and in diminished doses thereafter, preventing any further evacuation for several days. The bowels were then allowed to regulate themselves. From this time the improvement was rapid and steady. Two weeks after the shot the first solid food was allowed. The patient's appetite was good, and his digestive powers unimpaired, so that he rapidly regained his strength, and is now (May 10th) able to do light work.

Diagnosis of Yellow Fever for Sanitary Purposes

At the fourth annual meeting of the Louisiana State Medical Society, in March (the New Orleans *Medical and Surgical Journal*, May, 1881) Dr. S. M. Bemiss presented a paper on the above subject, in which he urged the expediency of indicating certain groups of symptoms which shall so far represent yellow fever that the patient shall be isolated and kept in close surveillance until a true verdict can be rendered. The following was adopted without a dissenting vote:—

I. For sanitary purposes the following groups of symptoms shall be considered to indicate yellow fever:—

Group 1*st.*—A person after (*a*) a sudden attack, has (*b*) a fever of one paroxysm, attended with (*c*) marked congestion or blood stasis of capillaries of surface, conjunctivæ and gums; with (*d*) a history of probable exposure to infection, and (*e*) no history of a previous attack of yellow fever.

Group 2*d.*—A person after (*a*) a sudden attack has (*b*) a fever of one paroxysm, followed by (*c*) unusual prostration, (*d*) albuminous urine, (*e*) yellowness of conjunctivæ, or skin, and having no positively authenticated history of previous attack of yellow fever.

Group 3*d.*—A person has (*a*) a fever of one paroxysm, (*b*) albuminous urine, (*c*) black vomit, or (*d*) suppression of urine, (*e*) general hemorrhagic tendency under (*f*) circumstances where exposure to infection is a possibility.

II. Suspicious cases of yellow fever for sanitary purposes.

The following symptoms associated with a fever of one paroxysm in a patient who has apparently been exposed to infection and has never had yellow fever, shall be held to justify in either of the six following cases a suspicion of this disease, viz:—

First. Suddeness of attack, either with violent pain in the head and back, injected eyes and face, or with marked congestion of the superficial capillaries.

Second. Want of that correlation between pulse and temperature usual to other forms of fever.

Third. Albuminous urine.

Fourth. Black vomit.

Fifth. General hemorrhagic tendency.

Sixth. Yellowness of skin.

The following cases shall also be deemed suspicious:—

Seventh. Any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not yellow fever.

Eighth. Any case respecting which efforts are made to conceal its existence, full history and true nature—in violation of Sec. 27, City Ordinance, June 24, 1879.

In the event of death of a suspicious case a post-mortem examination should be made when practicable. Both before and after death, yellow fever is specially and pre eminently characterized by the fact that it is, *par excellence*, a hemorrhagic fever, marked by capillary congestion and its sequelæ; hence post-mortem evidences of a general hemorrhagic tendency in internal organs, especially in the digestive, in preference to the urinary tract, shall be held to confirm the suspicion.

Treatment of Housemaid's Knee by Aspiration.

Dr. H. P. Yeomans writes to the *Canada Lancet*, July 1, 1881:—

A married lady, aged 30, who had noticed a swelling over the patella for a few weeks, applied to me for advice, January 8th. She said her knee felt weak, and pained considerably after ordinary exercise about the house. There was no external soreness or redness, but the bursa was very much enlarged and tense. I prescribed a mixture of iodide of potassium, and an external application of ung. hyd. nit. cum. iod. This treatment was persevered in continuously until March 8th, with no benefit. I then inserted an aspirating needle and removed about an ounce of thick, bloody serum—applied firmly over the patella strips of adhesive plaster, and bandaged the leg tightly. March 18th, fluid again collected in the bursa; had been gradually increasing for two or three days.

March 31st.—Bursa continued to enlarge—felt more painful, and the motion of the knee was interfered with somewhat. Introduced the aspirating needle again and drew off half an ounce of thick, bloody serum, similar in appearance to that obtained at first. I then applied a rubber bandage tightly, and ordered the patient to keep the affected limb at perfect rest. After this no further indications of enlargement presented themselves, and in a short time the patient resumed her accustomed duties, fully restored.

I thought this case worthy of notice because the treatment by external applications frequently fails, while incision sometimes results in the formation of an abscess. Treatment with the aspirator and the judicious application of a rubber bandage, combined with perfect rest for a few days, appears to be the simplest treatment, and the safest and least painful.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——"The Management of Wounds" is the subject treated of in a pamphlet of fifty-four pages, by Dr. David Prince, of Jacksonville, Ill. The various methods of treatment are thoroughly discussed.

——We have received a neatly gotten up 12mo volume, of fifty-eight pages, containing a collection of Test Business Problems, prepared by Thomas May Peiree, M.A., Accountant, Expert, and Proprietor of Peirce's College of Business, Philadelphia.

——Dr. George B. Wood Field, of Easton, Penna., sends us, in the form of a reprint from the *Journal of Nervous and Mental Disease*, vol. viii, No. 2, April, 1881, some valuable contributions to the "Physiology of the Spinal Cord and Adjacent Parts."

——In a reprint from the *Indiana Medical Reporter*, Dr. Edward Borck, of St. Louis, Mo., gives directions for "Simple Methods to Staunch Accidental Hemorrhage," with illustrations. He suggests that in all factories, on steamers and along the railroad lines, rubber bandages should be kept on hand, and that a certain number of the employees be instructed how to use them.

——*The Arkansaw Doctor* is the title of a new medical journal which has just made its appearance. It looks extreemly feeble and needs supporting treatment, or it will die in its infancy. On a rich diet, both in the way of subscriptions and contributions, it may grow up to become a power in the land. Time and the inexorable law in nature—*the survival of the fittest*—will decide. It is edited by Dr. L. J. Collins, of Harrisburg, Ark. Price $1.00 per annum.

——"What Shall we do with the Inebriate?" This question is carefully examined and discussed by T. D. Crothers, M.D., of Hartford, Conn., in a reprint from the *Alienist and Neurologist*, for April, 1881. Dr. Crothers, whose extended experience entitles him to speak authoritatively on the subject, is a firm believer in the curability of inebriety. His remarks on the cause and prevention of inebriety we recom-

mend to the careful perusal of all active workers in the cause of temperance.

——"The Saratoga Mineral Waters," with directions for their use, is the subject of a neat little pamphlet of fifty-seven pages, by Dr. W. O. Stillman, of Saratoga. The substance of this treatise was published in the REPORTER, May 22d and 29th, 1880. The book contains a map of Saratoga Springs and Excelsior Park, and numerous illustrations. A full analysis of the different springs and directions as to their use are given. A very complete index of the diseases which are benefited at Saratoga will enable the reader to refer to any of them without loss of time. Visitors to the Springs will find this guide of great value.

BOOK NOTICES.

A Text-Book of Practical Histology, with Outline Plates, by William Stirling, M.D., Sc.D., F.R.S.E., Regius Professor of the Institutes of Medicine in the University of Aberdeen. With 30 Outline Plates, one Colored Plate, and 27 Wood Engravings. Philadelphia: J. B. Lippincott & Co. London: Smith, Elder & Co. 1881. Cloth. 4to, pp. 186. Price $4.50.

The numerous treatises on the microscope and microscopical anatomy which have been published recently evince a marked increase in the interest taken in this important branch of medical study and in the requirement of the physician of to-day compared with a dozen years ago. The introductory chapter, comprising fifty-six pages, treats of microscopical technology, and should be carefully studied before practical work is attempted. The remaining hundred and thirty pages are devoted to practical work, simple rules for the preparation and examination of the various histological elements of the body, both in their fresh state and as permanent preparations, being given, the methods described being such as the author, after nine years' experience in the teaching of practical histology, has found to be really reliable. The outline plates are intended to aid the student in making a drawing of the majority of microscopic specimens which he makes, for preservation. This constitutes the chief characteristic feature which distinguishes this work from others of the same class. The text is printed in large, clear type, on good paper, the engravings are well executed, and the whole is encased in strong and durable binding.

Third Annual Report of the State Board of Health of the State of Rhode Island, for the year ending December 31, 1880. Providence: E. L. Freeman & Co., Printers to the State. 1881. pp. 290.

The vast amount of valuable information collected by the Board, and the way in which this information has been tabulated, showing the relative frequency of deaths, births, and marriages, to the population and to each other, throughout the State, for a period of years, cannot but reflect great honor on the officers who have discharged their duty with such praiseworthy zeal. The great difference both in the birth rate and death rate in different towns, is most remarkable; thus, during the period of ten years, from 1870 to 1879 inclusive, Jamestown shows both the smallest birth rate and death rate, the average of the former being 10.2 per 1000, and of the latter 8.6 per 1000, while during the same period Bristol exhibits the largest birth rate, viz. 29.8 per 1000, and Providence the largest death rate, 20 per 1000. The report contains meteorological tables, giving the maximum and minimum, as well as mean temperature, rain fall and prevailing winds. It also contains valuable papers on heredity, by Miss A. E. Tyng, M.D., and on house drainage, by the Secretary of the Board.

The First Baby: His Trials and the Trials of His Parents. By Jerome Walker, M.D., Physician to the "Seaside Home for Children," Coney Island; Lecturer on "Diseases of Children" at "Long Island Hospital Medical College." New York: Brown & Derby, 21 Park Place. 1881. Cloth. 12mo, pp. 203.

In the introductory chapter the author informs us that part of the information contained in this book has already been anonymously given to the public, in a little volume entitled, "How We Raised Our Baby." In the present volume the trials of "the first baby" and of its parents, up to the age of three years, are vividly depicted in the form of a narrative. Especially has the author succeeded in giving a true and faithful reproduction of the meddlesomeness of mothers-in law, nurses, and kind but obtrusive neighbors. If this little book could only cause such persons to see the evil effects of their well-meant officiousness, the author would have earned the gratitude of all young mothers and babies. It should, however, not be read by unmarried men, for it would deprive all but orphan girls of the chance of getting husbands, and young men, as soon as married, would be wanting to settle down in the middle of some desolate desert, with no other human habitation within a hundred miles. It contains much wholesome advice, and we recommend it to ladies of every station in life, whether young or old.

THE

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REFORM AMONG DRUGGISTS AND DOCTORS.

The "Medico-Legal Society of Philadelphia" has published and distributed a small pamphlet containing a list of druggists and a second list of physicians. The object is to bring about certain reforms in the relations of these two classes, and to let all whom it may concern know who are reformers, and, by implication, who are not.

On the one hand the pharmacists agree "to protect the public welfare, the province of the regular physician, and the interests of regular pharmacy and legitimate pharmaceutical manufacturing, by placing out of sight all patent and trade-mark medicine signs and medicines, by refraining from distributing all patent medicine almanacs, circulars, etc., and by discouraging the sale of all patent and trade-mark or quack medicines; and who also agree that neither themselves nor their employees will renew any physician's prescription marked *Do not renew*, or its equivalent; and who also agree to respect the injunctions of the pharmaceutical Code of Ethics, to refer patients asking advice, whenever practicable, to a physician."

On the other hand, the physicians agree "to promote regular pharmacy and the manufacture of regular pharmaceuticals, by withholding their professional patronage and encouragement from the monopoly of patent and trade-mark medicines, and ready-made panaceary in general, introduced to supplant the professional province of the physician and the pharmaceutical province of the apothecary or compounder of medicines; and who also agree to throw the weight of their patronage and influence in favor of those pharmacists who earnestly coöperate with the regular medical profession, in correcting the evils of patent medicine abuses, and certain other irregularities that encroach on the province of the medical practitioner, viz: the renewing of physicians' prescriptions contrary to the wishes or purpose of the prescriber; and the practice of substituting the physician by prescribing over the counter in cases of disease."

The druggists do not seem as anxious as the physicians to carry out this reform, as there are only thirty-four names of the former, against one hundred and thirty-four of the latter class.

Among the druggists we miss the names of most of the leading and fashionable pharmacies; and among the physicians, we should say a majority of the most eminent of our practitioners and surgeons are not represented by their names. It would appear that on both sides there is considerable hesitancy about entering into such an agreement.

There must, of course, be good reasons for men strongly interested in the welfare of their respective branches to hesitate in uniting with a reform, if they really believe it to be such; or else, they must doubt whether such a reform is, after all, just as much and what it sets forth to be.

One point will readily suggest itself: it is at least open to doubt, whether physicians ought to band together to "throw the weight of their patronage and influence" either for or against one or another class of druggists. Patients or their families and friends, in this city, usually

give their custom to some particular drug store; and a physician has no business to step out of his way to try to get them to go elsewhere. It is none of his affairs where the family buy their drugs.

Another point is also evident; the druggist agrees to discourage the sale of *all* patent and trade-mark medicines. Now we seriously doubt whether almost any one of our leading physicians strictly does this himself. There are certain medicinal preparations put upon the market, in forms so convenient, palatable, or of defined and constant activity, under trade marks, that we find they are used more or less by every physician of whom we have asked the question. They are not secret nostrums, but manufactured products. In the list of physicians' names given we see at least two who, to our personal knowledge, prescribe a certain trade-mark pharmaceutical frequently.

In regard to patent and trade medicines, there seems a slight inconsistency in the position of the Association. We, as a profession, have hitherto opposed patent medicines, because they do harm *to the public*; but here we are told that the reason we should oppose them is that "they encroach on the province of the regular practitioner." Is not this letting down a little? If the patent medicine trade is what we have all along pretended it is, then it rather helps us by making people sick; but if these nostrums, on the whole, do away with the need of doctors, had we not better keep this important fact to ourselves, as otherwise our lofty and virtuous rage about their sale will scarcely be so much admired as it has been?

Has not the Association been rather too zealous in this excellent work? Remember that Talleyrand found nothing so dangerous in public matters as too much zeal, even in a good cause.

THE VICTIMS OF THE TOY PISTOL.

The celebration of the Fourth of July this year was attended with a series of unusually grave accidents. Our people, with all their opposition to the Chinese, resemble them in one of their most stupid traits—they seem to think that the proper way to testify joy on a National holiday is to make a series of hideous noises, to fire "squibs," and toy guns, and "crackers," and other such abominations and diversions of unintelligent savages. On the fifth, all the newspapers have long lists of the dead, wounded, and missing.

In spite of the gloom which, on the fourth recently past, overshadowed the country, on account of the critical state of the President, who was trembling between life and death from the effect of an assassin's bullet, this foolish and inept pastime was not omitted. There were the usual number of eyes lost, fingers blown off, innocent passers-by shot, etc. But what was remarkable, was the extraordinary number of cases of tetanus, which, in many instances, led to the death of those but slightly wounded. Thus, already we have noted one death in Reading, one in Womelsdorf, Pa., one in Washington, eight in Rochester, New York, and eighteen in Baltimore, and no doubt very many more which have escaped our observation.

One peculiarity, so far as we know, is common to all these cases, and that is, that the wounds were all produced by the common *toy pistol*, which is shot with prepared cartridges in thin copper shells.

A physician of Baltimore asks the question, "What ingredients are used in making the cartridges of these toy-pistols? Have any such ingredients been known, heretofore, to have a tendency to cause lockjaw?"

It is extremely proper that these questions should be investigated by official authority, and the results made known. No such dangerous and destructive toy should be allowed to be sold.

A correspondent in Reading, in this State, describes a fatal case that occurred in his practice. A lad of fourteen years was wounded on the 4th, by a discharge of such a pistol, the cartridge entering the palm of the right hand, at the base of the index finger, making a very small wound, somewhat burned by the explosive material. On the 18th of the month the patient died, from tetanus of the severest character.

Our correspondent justly comments on this case in these words: "The weapon by which the wound of my patient was caused is one the manufacture of which should be prohibited by law; the numerous and fatal character of the injuries produced by it on the last Fourth of July render it a subject worth the consideration both of the medical profession and the legislatures of our country."

All will agree with this, and we urge the examination of the subject on the Boards of Health of those States who have Boards, and on the municipal authorities elsewhere.

The only reason, we should add, that Philadelphia does not figure in the list of cities showing casualties from this cause is that at present we have a Mayor who enforces the law preventing the sale or explosion of any kind of fireworks in the city on that day. To this wise and judicious action the parents of twenty or thirty boys no doubt owe the fact that their sons are not now in their graves, from the results of this pernicious toy. If anything can lead the American people to seek some more sensible and civilized method of celebrating their national anniversary, it may be that these frightful accidents will be the means.

Notes and Comments.

The Treatment of Summer Dysentery of Children.

On this subject, Dr. W. W. S. Watson, of New Holland, Ill., says, in the *Michigan Medical News*, July 11th, 1881, that the first indication is to thoroughly rid the alimentary canal of irritating ingesta. This is most promptly effected by means of a saline purge, which, in addition to its action in this direction, also depletes the inflamed tissue through the exosmosis of serum which it causes. Castor oil is preferred by some; it is blander in its action, but adds nothing to its purgative action. After this thorough cleansing of the canal the indication is to check the discharge. For this purpose he relies on opium and acids, after the following formula, modified, of course, according to age and other circumstances:—

℞.	Syr. rhei,	℥ iss	
	Spt. ammoniæ arom.,	℥ ss	
	Spt. camphoræ,	℥ ss	
	Tr. opii,	℥ j.	M.

Sig.—A teaspoonful every three hours to a child eight years of age.

When there is much nausea a powder composed as follows may be given every alternate hour and a half:—

℞.	Bismuthi subnit.,	℈ ij	
	Pulv. ipecac.,	℈ ss.	M.

Div. in partes No. viij.

Camphor has a very marked controlling influence over this affection, and its combination with opium will be found invaluable.

When the discharge is largely composed of white mucus, destitute of a trace of bile, the administration of small doses of calomel restores the deficient element, and with this restoration improvement in the condition of the patient follows.

The Fluorides in Medicine.

Dr. J. M. Da Costa gives, in the *Archives of Medicine* for June, 1881, the results of his observations on the effects of fluorides. The sodium salt was found to produce, even in three grain doses, such excessive nausea and vomiting that its use had to be discontinued. Both the ferric fluoride and the ferrous fluoride were at different times employed; the latter proved the more pleasant, and was more thoroughly tested.

With reference to the potassium fluoride, these results were obtained: It was first given to a case of subacute rheumatism, with considerable pain, in doses of five grains every third hour. It produced a most decided effect on the pain, without causing drowsiness or showing any influence on temperature. The urine was increased, and the specific gravity lowered; but this may have been owing to the greater amount of water taken, in consequence of the thirst. At the end of the second day there was nausea, with loss of appetite, and the medicine was discontinued. The pains returned, and at the patient's own request, a few days subsequently, the fluoride was resumed, in five-grain doses every third hour, and continued for three days, with the same good influence on the pains, but with, finally, the nausea and epigastric distress, which compelled its discontinuance. No hypnotic properties were observed from its employment.

In a second case of rheumatism, more acute than the first, five grains were given every third hour. The pains were greatly lessened, but the gastric uneasiness was caused as in the first case, and also occasional burning pain, and, once, vomiting. On the third day the bowels became loose, and the medicine was abandoned. But the patient missed the relief from pain, and asked that the salt be resumed. It was done; yet, as after a few days some gastric distress was

noticed and a loss of appetite, it was finally stopped. During its administration the flow of urine was greatly increased, the patient drinking, however, considerable water. Before the salt was given, three pints of urine were passed daily; on the second day, six pints, on the third day, five pints; the specific gravity was lowered. The doctor thinks that they are not well enough tolerated by the stomach to be really useful additions to practical medicine.

On the Treatment of Otorrhœa.

Dr. Thaulow says, in *Norsk Magazin for Lægevidenskaben*, that he regards syringing the ear, in otorrhœa, as not only unnecessary, but even injurious. The treatment which he has found of greatest value consists in first removing as much of the secretion as possible with dry cotton, after which the passage is plugged with cotton previously soaked in a saturated solution of boracic acid, and then dried. This should be removed and a new tampon reinserted once, or at most twice, daily. Under this treatment the secretions rapidly diminish and the odor disappears. The accumulations in the middle ear must, of course, at the same time be removed by Politzer's method, or inflation through the Eustachian catheter.

A Case of Severe Injury of the Brain, with Recovery.

Dr. William Wood, of East Windsor Hill, Connecticut, states, in the *American Journal of the Medical Sciences* for July, 1881, that on May 29th, 1880, he was summoned early in the morning to act as a juror in a coroner's inquest, on a man run over by the cars. On arriving at the depot where the body was brought, he found a well dressed gentleman lying on the platform with his head cut open from the inner canthus of the left eye to the occiput. The brain was exposed, and a furrow some three inches in length was cut through the anterior portion of it. The left eye was turned up so that the pupil was not visible. On the opposite side of the head was a scalp wound three and one-half inches in length. The conductor of the train stated that the man was lying *beside* the track, and that his head was struck by the pilot of the engine.

On looking at the cut in the brain, slight pulsation was detected, and there were also some irregular efforts at respiration. Dr. Wood immediately removed some spiculæ and depressed fragments of bone. The head was dressed with cold applications, after being approximated by sutures and bandage. The patient was comatose at first; he regained partial consciousness on the fourth day, and was rational on the fifth. The wound healed without accident, and the patient returned to his work on the twenty-sixth day after the accident, and his health has remained good since; no trouble about his head; mind perfectly clear. He sees objects out of his injured eye, above or on a level with his eye, perfectly well, but has not the power to look down while holding his head erect. To test his vision, the Doctor blindfolded his uninjured eye, and gave him a letter, which he read accurately and without hesitation.

Glaucoma Caused by Mental Worry.

Dr. Leartus Conner, editor of the Detroit *Lancet*, reports, in the July number of that journal, a case of glaucoma of the left eye of a gentleman, who, five days previous to the occurrence of any trouble in his own eye, had brought to the city for treatment his son, who was suffering from an injury to his left eye, caused by the explosion of a gun cap. The gentleman was very much alarmed about the boy, and the Doctor thinks that his extreme anxiety was the cause of the glaucomatous attack. He also draws attention to the singular fact that it was the left eye of both father and son that was affected, asking whether this should be regarded as a mere coincidence, or if it might not be due to the constant thought of the father concerning the injured left eye of his boy.

Iodine as a Specific in Croupous Pneumonia.

Iodine or iodide of potassium is, according to Dr. Schwarz, in *Deutsche Med. Woch.*, Band vii, No. 2, 1881, a specific in simple, uncomplicated croupous pneumonia. If given during the first twenty-four to thirty-six hours from the onset of the initial rigor, it will arrest the further progress of the disease. In illustration of this view, ten cases are recorded in which the crisis occurred before the end of the second stage, and in one case at the end of the first day. The following are the formulæ adopted by Schwarz:—

℞. Tincture of iodine, 5 drops
Water, 120 grams (℥ iv)

Sig.—One tablespoonful hourly.

℞. Iodide of potassium, 1½ grams (22 grs.)
Simple syrup, 30 grams (℥ j.)
Water, 120 grams (℥ iv).

Sig.—One tablespoonful hourly.

Special Reports.

NO. XIV.—TOXICOLOGY.

There is little doubt but that in many instances symptoms due to poisons of various kinds, some taken in the food or water, others inhaled in the atmosphere, some administered designedly, others strictly accidental, are misinterpreted and overlooked by the physician, because his attention is not awakened to the possibility of their frequent occurrence. It is important that he should bear in mind how directly toxic are many of the common articles with which we are in daily contact.

Poisoning from Tobacco.

The subject of poisoning by tobacco was discussed some months since, at the Medical Society of Prague (*Allg. Med. Cent. Zeit.* No. 33, 1880). Dr. Bulowa stated that he was physician to a factory employing five hundred girls in cigar making. Severe cases of anæmia were not rare. They were accompanied with great muscular weakness of the lower extremities. Such muscular asthenia was also at times present, when no anæmia was noted. Cramps of the muscles of the forearm were also common, at times extending to the trunkal muscles. These were generally seen in young subjects. From autopsies quoted, it appears that chronic tobacco poisoning produces marked anæmia of the brain and spinal cord.

Poisoning from Wall Papers.

Last winter Dr. John H. Clarke, in the *Medical Times and Gazette*, urged upon practitioners greater attention to the symptoms of poisoning from wall papers. He writes:—

A large number of cases of suffering from this cause have come under my notice of late, and I was at a loss to understand them until I tested the wall papers, and found in them quantities of arsenic, and was unable to make any impression for good on the patients until the wall-papers were removed.

Smarting in the eyes, though a fairly constant symptom, was not always present, and when present was not always a leading symptom. Deep general debility, a continued feverish state, chronic coryza, hæmoptysis, sickness and retching, cramps, spasms, diarrhœa or constipation, I have observed in various cases.

It should be remembered that it is not the green papers alone that contain the poison. It is largely used in the manufacture of other colors. I have found it in yellow, pink, blue and drab, and no doubt it is to be found in many more.

About the same time Dr. Kelsey related to the New York Clinical Society (New York *Medical Journal*) some facts regarding arsenical poisoning from wall paper as it had recently occurred in his own person. For the last two years he had suffered from occasional attacks of gastric and intestinal disturbance, attended with slight fever; and from a growing sense of lassitude and inability to do hard work, either mental or physical. The walls of his office were papered with a very rich green "velvet library paper." During a recent house-cleaning the paper was thoroughly swept down, and, as a result, a green powder was observed on the floor all around the edge of the room. On testing this, he found it to be almost pure Paris green. A paper hanger was sent for to remove the paper, and after working a few hours he was seized with all the symptoms of acute arsenical poisoning, and was obliged to desist. Another who took his place to finish the job suffered in the same way on the following day. It was discovered that at some former time the ceiling had been covered with Paris green, and that subsequently a coat of another color had been laid on over it, and the servant who attempted to wash this was confined to his bed for three days with cramps and diarrhœa. Finally, two members of Dr. Kelsey's household, who had taken considerable interest in what was being done, were attacked with similar symptoms; and he himself had one of his old familiar attacks. Since repapering, now six months ago, he had had none of his old trouble.

Dr. William J. Hills, in the Boston *Medical and Surgical Journal*, January 13th, discussing the tests for arsenic in wall paper, gives his own method, which is as follows:—

Take a sample three or four inches square (less will suffice with plain papers), cut into small pieces, moisten with concentrated sulphuric acid, and heat carefully till the paper is thoroughly charred. Let the charred mass cool, add to it about one fluid ounce of water, grind the black mass fine, that the water may come into contact with all parts of it, filter, and wash. The arsenic will be found in the filtrate, which is examined by Marsh's test. All the chemicals must be free from arsenic. A paper which, treated carefully in this manner, furnishes no arsenical mirror on porcelain, does not contain any appreciable amount of arsenic.

Another form of poisoning from wall paper has been discovered. Prof. Bernbech calls attention to the probable danger arising from the use of ultramarine wall papers. He states that a room hung with an ultramarine colored paper gave out a most disagreeable smell of sulphuretted hydrogen, the source of which for some time escaped detection. Eventually, however, a close examination was made of the paper,

which led to the conclusion that the deep blue wall-paper was slowly undergoing a process of decomposition under the influence of the alum in the paste used in hanging. This appeared to be confirmed, for on steeping a piece of the paper in a very dilute solution of alum it gave off sufficient sulphuretted hydrogen to be quite perceptible to the nose and to blacken lead paper.

Schmidt's Jahrbücher, No. 1, 1881, contains a number of cases of arsenical poisoning from carpets and upholstering materials colored with arsenical dyes. A Committee of the Swedish College of physicians has reported that sufficient attention is not given to deteriorations of health from this source. It is impossible to aver that even an exceedingly minute quantity of arsenic in dye stuffs is harmless. On the contrary, it is more likely to be harmful. Traces of arsenic can be found in the urine of persons who sleep in rooms carpeted or papered with materials containing this substance. Obstinate dyspepsia, inflammatory affections of the eyes, general debility and languor, may often be traced to this form of poisoning.

Poisonous Crayons.

The colored crayon pencils now so much used by children are colored by poisonous dyes, and those who use them should be taught not to put them in the mouth. The following instructive case is given by Dr. CAMERON, in the Dublin *Journal of Medical Sciences*, July, 1881:—

A child was taken with severe vomiting, and appeared to be suffering acutely. On closely examining the vomited matter, very small particles of a green substance, brighter than biliary matter, were observed in it. On touching them with solution of ammonia they acquired a deep blue color, showing the presence of copper, and therefore, probably, of arsenic. Precipitated ferric hydroxylate ($Fe_2(HO)_6$) was promptly prepared and administered to the child, as were also ipecacuanha, a little mustard, and abundance of warm water. The washing out of the child's stomach was continued until the disappearance of the green particles from the vomit, which, however, did not take place for more than two hours. In order to dislodge the poison from the bowels a purgative was administered. The egesta was found to contain numerous bright green fragments, and they did not disappear until the end of the second day. The child was feverish, restless, and sleepless for about forty hours, after which he became slowly better, but was not convalescent until about the seventh day. His abdomen was tympanitic, his features were shrunken, and the cerebral symptoms were severe. On three occasions the patient nearly died from collapse. He recovered after about a month. It was found, on examination, that he had eaten a portion of a green-colored crayon, which, on testing, was found to be colored with *arsenite of copper*, the amount of arsenious acid being 1.72 per cent.

The exceedingly dangerous character of such a means of amusement for children is very evident.

Poisonous Articles of Food.

The Committee on Epidemic Diseases of the last House of Representatives secured a mass of convincing evidence of dangerous food adulterations in this country. From one of the reports submitted, made by a chemist of Chicago, we make the following extracts:—

At the request of a highly respectable citizen of Chicago, I have examined fourteen brands of sugar, bought, as I understood, in this city, some granulated, some white, some colored, some coarse, and some fine. I tested them thoroughly for impurities. In twelve of the samples I found tin in the form of a chloride, an active poison. I have examined several syrups, made essentially and entirely of glucose, and found in them chlorides of tin, calcium, iron, and magnesia, and in quantities which made them very poisonous. In one case a whole neighborhood was poisoned and I was told of one death. I have in several cases found sugar of lead in vinegar.

I have had large experience in the analysis of colored poisonous articles of clothing, being employed by one of the largest dry goods firms in this city. I examined, I think, sixteen samples, and nearly all of them were poisonous. I have also analyzed for other parties. In one case a child nearly died from wearing colored stockings.

I have examined a large number of specimens of oleomargarine, and have found in them organic substance in the form of muscular and connective tissues, various fungi and living organisms which have resisted the action of boiling acetic acid; also eggs resembling those of the tapeworm. I have them preserved to be shown to any one who desires to see them. The French patent under which oleomargarine is made requires the use of the stomach of pigs or sheep. This is, probably, the way the eggs get in. I have specimens of lean meat taken from oleomargarine. There can be no question that immense amounts of oleomargarine are sold and used as pure butter. I regard it as a dangerous article, and would on no account permit its use in my family.

Much credit is due to the *Sanitary Engineer*, published in New York city, for its frequent and energetic exposure of food and drug adulterations.

Mould Poisoning.

Poisoning by mould is one of the dangers attendant on eating partially decayed food. In the *Revue d' Hygiène*, January, 1881, M. MEGNIN adduces many cases, among men and animals, of poisoning by mouldy or rancid provisions, notably those of two pigs, who, after eating a quantity of spoiled bread, died with colic, cerebral symptoms, and blindness; and comes to the conclusion that the most virulent and characteristic

of these mould poisons is the *Ascophora nigricans*—the *Oïdium aurantiacum*, polymorphic with *Erysiphe aur.*, ranking next, the *Mucor mucedo* and *Aspergillus glaucus*, which develops into *Eurotium herbariorum*, being comparatively innocent. Other observers have, however, found that the injection of the spores of the *Penicillium glaucum* into the jugular veins of dogs produced an affection of the skin resembling, if not identical with, psoriasis. And M. Colin, of Alfort, found that the inoculation of the hands of vine-dressers, by means of abrasions, with the *Oïdium Tuckeri* of the vine, led to a vesicular eruption, followed by phlegmonous inflammation, gangrene, and, lastly, a crop of *Oïdium albicans* on the mucous surface of the mouth.

Symptoms of Quinine Poisoning.

That deafness, sometimes permanent, is an occasional result of taking large doses of quinine is well known. A case of amaurosis due to the same cause was reported to the Society of German Physicians, by Dr. Gruening (New York *Medical Journal*, February, 1881):—

The patient was six weeks pregnant, and five days after an ineffectual attempt at artificial abortion a fetid discharge set in, with high temperature. Dr. Adler was called in consultation, and removed the contents of the womb, with but slight hemorrhage at the time. The temperature rose to 106° Fah., and was combated by local treatment and quinia internally, to the extent of eighty grains in thirty hours. After a severe hysterical attack, with almost unclouded sensorium, the patient lost her sight and hearing. Twenty four hours later she could hear again, but remained totally blind. An examination of the eyes showed the pupils dilated *ad maximum*, without reaction to light; the media clear; the optic disk pale; the capillaries distinct, but reduced in calibre; the retina of a hazy appearance, the macula highly colored and prominent. Three weeks later the patient regained her sight, to lose it again upon the appearance of the menstrual flow. This phenomenon took place once more, followed by decided and steady improvement under the administration of nitrite of amyl, digitalis, iron, and strychnia, and the use of the galvanic current. Dr. Gruening reported that there were five cases on record, in every case recovery having taken place with a contracted field of vision. The prognosis, was, therefore, not unfavorable.

Poisonous Effects of Iodide of Potash.

An instance where moderate doses of potassic iodide led to marked purpura hemorrhagica is reported in the Dublin *Journal of Medical Science*, April, by Dr. Duffey. As this medicine is given so largely, it is of unusual interest:—

A patient, 25 years of age, was admitted, suffering with rheumatic pains in the feet. The ankles and knees were red and swollen, and there was mitral regurgitant murmur. He was given potassium iodide, ten grains thrice daily; later it was increased to fifteen grains. After having taken two and a quarter ounces of the iodide, he complained of slight sensation of warmth and itching on both shins, and small round spots on the legs appeared. Next day he felt very well; no fever, no heat, no itching. Over the lower anterior and lateral aspects of both legs, and on the dorsum of both feet, a copious eruption of discrete purpuric spots appeared; they were circular, dark blood red, size of pin's head to that of a lentil, not elevated, and were confined to the legs. There was no languor nor depression, and no albumen in the urine. The iodide was discontinued, and in eleven days no trace of the eruption remained. A week later, no medicine having been given in the meantime, as a test, fifteen grains of iodide of potassium was ordered to be given three times a day. After having taken forty five grains, the purpura again appeared on both legs, without heat or itching. The medicine having again been discontinued, the eruption disappeared in four days.

No doubt can remain but that the iodide of potassium was the cause of the purpura. Iodide of ammonium had the same effect, but iodide of sodium had not.

Poisoning by Carbolic Acid.

Considering the extensive use of this agent, cases of poisoning from it are comparatively rare. There have been in all, probably, about thirty cases reported. Of these at least five-sixths were accidental. Half of all the cases have arisen through an attendant having supplied the acid instead of some other drug, and one fifth have occurred by the person mistaking it for beer or spirits. A certain amount of carelessness must, therefore, be credited with having supplied the great majority of the cases. Only one-sixth of the whole have been the result of deliberate suicidal intent, and no case of murder has occurred in which this drug was the poisonous agent. In each case which has been reported a certain amount of treatment was tried, varying from the simple exhibition of oil to the repeated washing of the stomach with the pump. Notwithstanding all efforts to save the life, death resulted in at least nine cases out of ten, in periods varying from a few minutes to two days. One case of suicidal poisoning was reported by Dr. Davidson, in 1875, which is very interesting, as recovery took place after four ounces of crude carbolic acid had been swallowed; but in this case the stomach was well filled, and much of the acid was immediately rejected by vomiting.

One is reported in the Glasgow *Medical Journal*, June 18, 1881, of a young woman who swallowed two ounces of Calvert's No. 1 carbolic acid

solution, with suicidal intent. Medical assistance was promptly at hand, but she died in about three hours. Most of the time she was unconscious, and the suffering did not seem to be severe. She could not swallow, so little treatment could be resorted to.

A partial post-mortem was made. The stomach contained about four ounces of grumous-looking fluid, which smelt very strongly of carbolic acid. Its mucous membrane was detached, in places, in pieces as large as a half crown, was intensely congested and of a greenish-red hue. It could be peeled off the walls quite easily. The duodenum was also in a condition of intense inflammation. The remainder of the intestinal canal was normal.

A series of experiments on dogs with this acid was reported by Dr. TANSINI, in the *Gazet. Med. Lombard.* From twenty cases he draws the conclusions, that even large doses of the dilute acid are not always fatal; death proceeds from paralysis of the respiratory centres, not of the heart; poisoning may arise from absorption, enemata, etc. As antidotes, the sulphur acids may be used, ether injected subcutaneously, and artificial respiration kept up.

Poisoning by Bitter Almonds.

In his classical work on *Poisons*, Dr. TAYLOR mentions only two cases of poisoning by bitter almonds, neither of which was fatal. A third case, where death was prevented only by active medical aid, is recorded in the *British Medical Journal*, July 2d, 1881. The patient, a working man of middle age, ate two handfuls of bitter almonds, and drank a pint of beer. About two hours afterward he suddenly dropped down, unconscious.

When brought to the hospital, at 9.30 P.M., he was quite insensible and collapsed; breathing gasping and labored; he was cyanotic; and the pulse was hardly perceptible, rapid and flickering. There was some dark mucus about his mouth, his jaw was fixed, his teeth firmly closed, and the pupils contracted, and perfectly insensible to touch or light. The extremities were cold. The heart's apex beat was weak and rapid; the abdomen was somewhat distended, and he had passed his fæces unconsciously; some mucous *râles* were heard over both chests. The stomach-pump was at once used, and about a pint of thick brown fluid, containing a quantity of small white particles, smelling strongly of hydrocyanic acid, was removed. His stomach was then washed out with warm water. After this the patient became more collapsed, and his radial pulse almost ceased. The battery was used for ten minutes—one pole over the apex of the heart, the other on his neck, over the course of the pneumogastric nerve. Respiration now improved a little, and the patient was put to bed, with hot fomentations on his chest and abdomen, and hot water to his feet. At 10 P.M. liquor ammoniæ fortior was given as an inhalation, every ten minutes, and the current from twenty-five cells of Leclanche's battery applied as before—contact being made and broken with the inspirations. Under this treatment his breathing became deeper and more regular; the pulse was 120 to 140. At midnight the patient remained in about the same state. The battery, and inhalations of liquor ammoniæ, were continued alternately, every half-hour, until 2 A.M. The pulse was 130, and stronger. At 2 A.M. turpentine stupes were applied over the chest, and an injection of one twenty-fourth of a grain of sulphate of atropia was given hypodermically; after this he slowly recovered.

The symptoms were, no doubt, due to prussic acid, which was found in the matter withdrawn by the stomach-pump. The acid is produced by the mutual action of two of the constituents of the almond, emulsine and amygdaline, in the presence of water at a certain temperature. A point of medico-legal interest is, that there was a considerable interval of consciousness between the ingestion of the almonds and the first development of the symptoms, which was, as seems to be the rule with prussic acid poisoning, quite sudden.

Poisonous Petroleum Products.

Such an enormous use is made of petroleum products nowadays that the profession should be aware that they are not wholly innocuous. The following instance of poisoning by *paraffin* is given in the *Lancet*, November 12th, by Mr. HORACE ELLIOTT, F.R.C.S.:—

A short time back a child two years of age drank some paraffin from a tin can. The child was seen about twenty minutes afterwards, and was found to be in a state of semi-collapse, being very pale: the surface of the body was cold and clammy; the pulse small and feeble; the pupils were widely dilated, but acted slightly to the light from a candle. The breath smelt strongly of paraffin. The little patient was dazed and very drowsy, and could only be kept awake with difficulty. Did not cry. Vomited slightly before the doctor saw it, and again soon afterwards. Emetics were administered, which only acted slightly, the vomited matter smelling very strongly of paraffin. The child was not allowed to go to sleep, and about two hours afterward it began to rally; the surface of the body becoming warmer and the pulse more frequent; the patient cried; there was no diarrhœa. Next morning the child was quite well.

Lead Poisoning.

In the *Centralblatt für Nervenheilkunde*, No. 8, 1880, Dr. A. KAST positively denies the statements made by Dr. MASON, of this country, that frogs placed in a solution of acetate of lead, after a few days become paraplegic. This does

not occur even in solutions of chloride of lead. Symptoms of infiltration and swelling occur, but no signs of anything abnormal in the nervous system was noted.

The pathology of lead paralysis is studied by Dr. E. ZUNKER, in the *Zeit. f. Klin. Med.* p. 496, 1880. He does not believe that the alteration in the gray substance of the spinal column is the primary cause of the paralysis, but that this is rather to be attributed to myositis and neuritis brought about by the peripheral affection. This begins before the nervous centres are attacked, or, at any rate, at the same time, and it is not possible, clinically, to insist on the primary, peripheral and central stadia of the dis ease, as some authors do. Dr. ZUNKER'S positions are supported by the result of the autopsy of a painter, thirty-six years old, the subject of lead paralysis, who died of phthisis, and who showed marked neuritis, but no central changes

Physostigma vs. Belladonna.

The antidotal action of Calabar bean in belladonna poisoning is illustrated by a case in the *British Medical Journal*, June 11th, reported by Dr. JAMES HUDSON. The patient took a large overdose of a solution of atropia. Feeling strange symptoms he sent for Dr. HUDSON, who on his arrival injected a solution of the extract of physostigma. At that time there was not the least trace of returning consciousness. In less than five minutes after the injection the patient looked round in a surprised manner; and in five minutes more he was in complete possession of his faculties, and gave a clear, detailed account of the occurrence; and it was with great difficulty that he could be persuaded into the belief, that some seven and a half hours had elapsed since he had sent for the physician.

This case is interesting from the marked promptness of action of the physostigma; and, though there is no evidence that the patient had taken a fatal dose of atropia, still he had taken sufficient to produce severe symptoms, which symptoms were immediately relieved by the Calabar bean.

The Effects of Bromide of Potassium in Strychnia Poisoning.

Mr. ENGLEDUE PRIDEAUX gives, in the *Lancet*, January, 1881, the history of a case of strychnia poisoning, in which an ounce and a half of bromide of potassium was administered in the space of a few hours, as an antidote to three-quarters of a grain of strychnia. The spasms soon ceased after the first two doses of half an ounce each, and next day the woman was quite unable to raise herself, and hardly able to move a muscle; indeed, she seemed like a sheet of wet blotting-paper, and was almost completely paralyzed; her urine had run away in great excess, and a large quantity of liquid fæces. Her pulse was slow and remarkably feeble. After three days she was able to raise herself, and had regained the power over the sphincters; and on the fifth day was able to sit up.

CORRESPONDENCE.

Tailed Humanity.

ED. MED. AND SURG. REPORTER.

Apropos of your editorial on Anthropological Studies, in the issue of the REPORTER for July 16th, I have a *little tale* to relate to you, of a military character now stationed somewhere in the far West. My friend, Captain S. H. Norton, of this city, late of Company G, Second U. S. Cavalry, was a classmate of his at West Point, in the year 1861, just before the outbreak of the late unpleasantness, and graduated with him several years later. They were mutual friends, great cronies together, and the captain can, therefore, substantiate all the facts herein given. The young man was then eighteen years of age, short, stout of stature, a cousin to a sculptor since become somewhat famous, both natives of New York.

This young man suffered from an elongation of the coccyx, forming a protuberance which bulged the skin considerably, plainly visible and movable. The exercise of horseback riding, compulsory in the riding school of the Academy, always gave him the greatest pain and distress. Frequently, while undergoing these exercises—agonies almost unendurable to him—the cantle of the saddle so chafed upon this protuberance as to force it through the skin, the blood trickling down into his boots. Aside from this elongation, however, there was nothing to denote a caudal appendage, either modern or primitive.

Dropping down upon some undoubted instances, however, where this was the case, we find Greve's, 1878, *Virchow's Archives*, said to be the longest tail on record afflicting humanity. This occurred in an infant, newly born, seven to five centimetres in length, and which, when pricked with a pin or needle, actually moved itself. It was removed by an operation, and when dissected by Virchow, it was found to contain bone, cartilage and muscle, and, although not a tail proper, minus the hair, was, nevertheless a good substitute for one. Unfortunately, our record of such abnormalities is exceedingly scarce, as scarce as the tails themselves, in fact; yet, that they occasionally do occur, even in generations so remote as this from the primitive condition of *caudals*, there is every reason to believe. Recently, Dr. Ornstein, of Athens, the surgeon-in chief of the Greek army, reported several cases where there was an unusual growth of hair in the sacral region, but in which there was no elongation of the coccyx. In one of his,

however, a decided prolongation of the coccyx had taken place in connection with a hairy sacrum, the appendage measuring two inches in length.

My old professor of anatomy in the University of Pennsylvania, Dr. Leidy, when he came to this interesting region of the early development of man, always insisted upon the tail, taking up considerable time in endeavoring to establish an evolution. CHAS. H. MILLER, M.D.

Peabody, Kansas.

[As Prof. Virchow was President of the Anthropological Society, and in the chair when the report in question was read, evidently he did not disagree with its findings, or he would have spoken up.—ED. REPORTER.]

Questions in Ethics.

ED. MED. AND SURG. REPORTER:—

I wish to offer some reflections on the "Questions in Ethics," as they appear from time to time in your column devoted to "Queries and Replies." The questions are generally so stated as to make the reply obvious to any one at all acquainted with the Code. Doubtless every intelligent reader is ready to approve the reply, *because* it is obvious, and the physician pronounced guilty of a breach of the Code will approve "the finding of the court." But the reply is based on the statement of *one* of the parties, and therefore, decides nothing, as *between* the parties.

I am led to offer these reflections by a question in Ethics in the first number of the current volume of the REPORTER, signed J. L. M. The answer to that question, as stated, is as obvious to the writer (personated by D. B.), as to you, Mr. Editor, or to the thousands of readers of your journal. But in that case the statements are *mis* statements of the facts, as they are known to the writer, and the same is probably true of the majority of such *plain questions*. In the opinion of the writer, questions in Ethics, intended for publication, should be confined to such as involve doubtful interpretation of the law, the answers to which would be instructive to the profession. The law is, in general, so plain in its provisions, that any one wishing a favorable judgment from the laity would only need to state the case and read the law applying to the case, to obtain such favorable judgment. J.

July 21st, 1881.

[J. should remember that an editor is not gifted with omniscience, and can only know the facts as reported to him; nor has an editor any right to impute bad motives to a correspondent asking a plain question; nor should J. think that the provisions of the Code are as clear to all as they may be to him. The opinion of an editor may also legitimately differ from that of the above writer as to what it is desirable to publish. In the case referred to, if there were misstatements of facts, then, of course, the opinion given was probably wrong, and with a full hearing might have been reversed; but it stands to reason that an editor can only speak with the light he has, not with that he has not.—ED. REPORTER.

Sudden Death from Abortion.

ED. MED. AND SURG. REPORTER:—

An autopsy of the body of Miss H., of our city, developed the fact that all of the organs of the body had been in a normal condition. The heart did not even show any signs of organic lesions. The testimony before the Coroner's inquest showed she had been treated for functional disease of the heart. It was quite evident that some mischievous hand had attempted an abortion, as the only sign of any meddlesome interference was an abrasion of the mucous membrane of the posterior part of the neck and body of the uterus, as if made by a sharp instrument. In the neck the membrane was only separated, in the body the muscular fibre was slightly lacerated, but little or no contusion of the parts. *And no signs of hemorrhage.* A fœtus of four to four and one half months was removed. The uterus was soft and flabby, as if one-half to two-thirds of the waters had escaped. The inquest showed that death ensued immediately after the introduction of a rubber catheter with the wire protruding through the lower opening, just enough to injure the parts in the manner described.

Query: There being functional disease of the heart, could this woman have died from the shock; or did she die from the introduction of air into the circulation? If not, what was the cause of death? S. S. TROY, M.D.

Nashua, Iowa.

[The probable cause of death was introduction of air into the veins.—ED. REPORTER].

NEWS AND MISCELLANY.

Places Exempt from Hay Fever.

The official report of the United States Hay Fever Association for 1880 gives the following list of places more or less exempt:—

Adirondack Mountains and Lakes, Alleghany Mountains, Aroostook River, Ashland, Wis. (Lake Superior), Bayfield, Wis. (Lake Superior), Bristol Hills, Ontario County, N. Y., Calumet, (Lake Superior Region), *Canada, Catskill Mountains, *Chautauqua Lake, N. Y., Colorado Mountains, Cranberry Summit (Baltimore and Ohio Railroad), Cresson, Pa., *Denver, Duluth, Minn., Eagle river (Lake Superior), Eastern and Northern Maine, Eastport, Maine, Ebensburg, Pa., Esquinonin, Europe, Fairfield Valley, N. C., height 3500: Fire Island, New York, *Florida, Glover, Vt., Green Bay, Wis., Hersey, Mich., Houghton (Lake Superior), Ishpeming (Lake Superior), *Jamestown, N. Y., *Kansas, S. W., *Kane, Pa.. Keene Flats, Essex Co., N. Y., Kingwood (B. and O. Railroad), Labrador, Lake Minnetonka, Minn., (Lake Superior Region,

The * indicates partial or doubtful.

*Louisiana, Mackinaw, *Marquette, Mich. (Lake Superior), *Meadville, Pa., *Minneapolis, Minn., *Minnesota, Minnequa, Pa., *Monadnock Mountain (summit of), near Peterboro' N. H.; Moosehead Lake, Mt. Mansfield, Vt., Mt. Desert, *Mountain Lake, Giles Co., Va., *Muscatine, Iowa, *Nantucket, Mass., New Brunswick and Nova Scotia. New York—Certain towns in counties of Alleghany, Cattaraugus, Chautauqua, Chemung, Cortland, Madison, Steuben, and other places in New York, Pennsylvania, and Ohio, Plateau; Nevada, North Danville, Vt., North of St. Lawrence river, North Mountain, Sullivan County, Pa., Oak Bluffs, Martha's Vineyard, *Oakland, Md., Overlook House, Catskill Mountains, Peterboro', N. Y., Petoskey, Mich., Put-in-Bay, Lake Erie, *Princeton, Mass., Quebec, Rocky Mountains, Saulte de St. Marie, Mich., Schroon Lake, N. Y., *St. Anthony, Minn., St. Lawrence Valley, Superior City, *Summit, Pa., *St. Paul, Minn., St John River, N. B., Tadoussac, Canada, Tulerosa and Wingate, New Mexico, *Wachusett Mountain, Mass., Western Territories, Willoughby Lake, Westmore, Vt., (depot, West Burke, Passumpsic Railroad), West Charleston, Va.

White Mountains—From Lancaster and Littleton on the west, to Bethel, Maine, on the east; from Jackson, and the Crawford House, on the south, to and into Canada on the north. (Average elevation 1400 feet.) This territory embraces: Bethlehem, N.H.; Bethel, Maine; Bowman's Place, between Moon and Israel rivers; Carrol, Twin Mountain House, Crawford House, Crawford Notch, Cherry Mountain, Fabyan's, White Mountain House, Franconia, Notch and Village, Flume, Gorham, Glen, Gilmanton Hill, Jefferson, *Lancaster, *Littleton, Mount Washington, Old Crawford House, Pinkham Notch, Profile House, Randolph, Shelburne, Valleys of Ellis and Sawyer rivers, Whitefield and Willey House.

Hotels and boarding-houses can be found in all of these places, prices of board varying from six to fifteen dollars per week, during the hay fever period.

The * indicates partial or doubtful.

A Warning to Medical Students.

The following item is found in the London *Medical Times and Gazette*, of April last:—

Mr. G. H. Hull, the Surrey Coroner, last week concluded an inquiry, at Battersea, as to the death of a woman, the wife of a potman. The husband of the deceased said he went for a Mr. Scott, at a private dispensary in Battersea, Park Road, the name of Dr. Martin being on a brass plate at the door. Mr. Scott attended and made frequent calls until she died. She had given birth to a child. Medical evidence went to prove that the woman died from exhaustion; her life might have been saved had proper means been taken. William Scott was called and gave evidence. He said he was a medical student, and resided at 547 Battersea, Park Road; the house was his property. He had never represented himself as being qualified, or stated that the dispensary belonged to him. He sent for Dr. Martin when he found that the deceased was becoming exhausted. The jury, after a long deliberation, returned a verdict of manslaughter against William Scott, and he was committed for trial at the Central Criminal Court, bail being taken for his appearance.

Trichinosis in American Hams.

A strong opposition to the use of American hams is becoming manifest in Europe. At the meeting of the German Public Health Association, in Berlin, in June, the Director of the Royal Veterinary School, Prof. Roloff, gave a very unfavorable opinion against them, saying, that from one to four per cent. are found trichinous. The Hungarian Council of Public Health have officially recommended that the importation of American swine flesh of all kinds into the kingdom be forbidden. Of three hundred American hams examined in one house at Hamburg, eight were found trichinous.

Twin Half-Brothers.

Dr. J. G. Earnest, of Newman, Ga., reports the following unique case in the *College and Clinical Record*, July 15, 1881:—

Amelia, a coal black negress, aged about forty years, was confined November 20, 1880, giving birth to twins—one a very bright mulatto, the other perfectly black. The black child was born first, according to the midwife's statement. The mother states that the children were begotten the same night, a negro man having intercourse with her first and the white man about an hour afterward.

The Prevalence of Venereal Diseases in Guatemala.

El Medico y Cirujano Centro Americano informs us that, by order of the political sub-chief of the State, all the prostitutes were subjected to an examination, for the purpose of ascertaining the prevalence among them of venereal diseases. Only five per cent. were found healthy. It does not appear, however, that any measures were taken to isolate the remaining ninety-five per cent. until they could be properly cured, for the editor strongly urges that since the alarming extent of the evil is known, practical and vigorous means should at once be adopted to limit it.

Statistics of Plural Births in Sweden.

During the hundred years from 1776 to 1875 inclusive, there occurred in Sweden, according to Dr. F. T. Berg, in *Hygiea*, 1880, page 331, 9,539,053 accouchements. Of this number 144,386 resulted in twin births, 2168 in triple, and 44 in quadruple births. He also shows that the relative proportion of plural births is gradually decreasing, while there is no diminution of the actual birth-rate in proportion to the population.

The President's Wound.

Our chief magistrate continues to improve up to the time of sending these lines to the press, and, indeed, from the reports published in the

daily paper, he may be pronounced substantially out of any visible and immediate danger. The country may be congratulated on this highly satisfactory result of what undoubtedly was a gunshot wound of great severity.

Items.

—One Alabama county has 9000 people, no lawyer and one physician.

—The plague is reported to have been "stamped out" in Mesopotamia.

—A virulent form of cattle disease is reported to have broken out in Nova Scotia.

—The "Siberian Plague" has broken out in some districts of Eastern Russia, and is said to be attacking the human as well as the bovine species.

—The celebrated Ricord is said to have written memoirs under the title "The 19th Century Seen Through a Speculum." They are not to be published till thirty years after his death.

—The subject of cremation is under the consideration of the Japanese Government, who have appointed a special commissioner (Mr. Monosuke Sano) to study the subject; he is now investigating the merits of the Italian system at Milan.

—The Aldermen of Vicksburg have passed resolutions protesting against the suspension by the National Board of Health of the quarantine station below their city, and asking that the station be restored and efficient officers be placed in charge.

—A claim for damages has been presented to the New York Board of Health, growing out of the death of a child from blood poisoning, alleged to have been consequent upon its vaccination by one of the city physicians. The claim will, no doubt, be held to be valid.

—The Allentown (Penn.) *Register* says: "A Jefferson county man, named Godfrey Reitz, had a stroke of apoplexy some days ago, and, to all appearances, died. While preparations were being made for the obsequies, however, he rose up and asked to have the funeral deferred. His friends willingly complied with the request."

—One thousand two hundred employees of the Old Colony Railroad have been examined for color blindness, in compliance with the Massachusetts law, and over forty engineers, firemen, conductors and others have been dismissed, because they have defective sight. Of this number is conductor Cowan, who has taken tickets for thirty-two years, and never had an accident happen to his train.

—A sick boy: "Oh, Doctor, I'm so glad you've come. I don't know what's the matter with Charley, at all. He complains of the febrile rise in his peritoneum, and he says his hypochondrion is all twisted out of shape. Oh, he's an awful sick boy, Doctor." "I should say. Must have been reading the Presidential bulletins." The doctor leaves a seidlitz powder and departs.—*New Haven Register.*

—Queen Victoria has given the Albert Medal of the first class (for gallantry in saving life), to Dr. David Lowson, of Huddersfield, England. He attended a child suffering from laryngeal diphtheria, and finding, after performing the operation of tracheotomy, that his patient's only chance of life lay in instantly clearing the tube, he himself sucked out from the tube the accumulated mucus. The heroic doctor was seized in a few days by a severe attack of diphtheria, and other dangerous illness supervened, compelling him to abandon his profession.

OBITUARY NOTICES.

—Prof. M. J. Schleiden, distinguished as a botanist, naturalist and physician, died, June 24th, at Frankfort-on-the-Main, in his seventy-eighth year.

—Dr. Maurice Raynaud, who had been chosen to deliver the address in French, at the approaching International Congress, and Dr. Gustave Chantreuil, an eminent obstetrician, both of Paris, are named among recent deaths. The former died of heart disease, the latter of peritonitis, said to have been caused by drinking a glass of iced beer when heated and fatigued after an obstetrical operation.

—To the other names of foreign medical men of eminence recently deceased, must be added those of Professor Lotze, of Berlin, author of "General Pathology and Therapeutics as a Mechanical Science;" Professor St. Claire Deville, the eminent chemist; and Dr. Mandl, the laryngologist, who, from ill health, had for some time retired from the active duties of his profession.

QUERIES AND REPLIES.

MR. EDITOR.—I would say, in reply to B. F. S., that I stated the exact fact; "they (the teeth) *presented the same appearance that a lamb's does when first born.*" I do not say that a lamb or a sheep has incisor teeth, and the inference he draws from my brief way of stating the case is not only incorrect, but improper.

Mostertown, Pa. L. L. DOTY, M.D.

Dr. T. M. M., of Texas.—You will find the formula for mist. rhei. et gentian on page 420 of last volume of the REPORTER.

Dr. Antonio.—There has been no instance recorded where a so-called hermaphrodite has completed the functions of both sexes, that is, both borne and begotten offspring; at least, we know of none.

Dr. M. K., of Ills.—The phosphated drinks now so popular in England are of questionable healthfulness, if taken as constant beverages.

Obstetrician, Pa.—From the reports and discussions we have seen we should think that Porro's operation is not growing in favor. The mortality resulting has been very great, and does not seem to decrease in the latest cases.

Dr. S K., of Conn.—The work you refer to is probably Dr. Paolo Mantagazza, *Fisiologia del Piacere;* we do not recall any other on that subject.

DEATH.

CONNER.—In Palmer, Illinois, on Saturday, July 16th, 1881, at 8 P.M., of entero-colitis, Alice Jones Conner, aged 1 year 1 month and 23 days. Infant daughter of J. J. Conner, M.D.